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ABSTRACT

This document contains papers from two NABE annual conferences: (17th, Houston, Texas, April 27-May 1, 1988) and (18th, Miami, Florida, May 9-13, 1989). Papers cover three categories: (1) bilingual education and bilingualism: realities in the twentieth century; (2) current ideologies and models in bilingual education; and (3) effective instructional strategies in bilingual education. The following papers are included: "Challenging Mainstream Myths with Bilingual Excellence" (Ana Zentella); "Bilingualism in Canadian Education" (Georges Duquette); "Demographic Characteristics of Hispanic Students in Higher Education" (Julia Coll); "Bilingual Teachers' Ideologies in the Integration of Hispanic and Southeast Asian Immigrant Students: An Initiative Between Practitioners and Researchers" (Martha Montero-Sieburth); "Integrating Language and Context in the Preparation of Bilingual Teachers" (Robert D. Milk); "A Model for Implementing Bilingual Education" (Roy Howard); "The Effective Schools Movement: Implication for Title VII and Bilingual Education Projects" (Betty Mace-Matluck); "Contextual Elements in a Bilingual Cooperative Setting: The Experiences of Early Childhood LEP Learners" (Lilliam Malave); "Analyzing Hispanic Students' Science Problem-Solving Skills" (Stephanie Knight, Kersholt Waxman); "Examining the Cognitive Reading Strategies Used by Hispanic Elementary Students While Reading Spanish" (Yolanda Padron); "Evaluating the Effectiveness of Writing on the Comprehension and Retention of Content Reading in Bilingual Students" (Andrea Bermudez, Doris Prater); "The Effects of Parent Education Programs on Parent Participation" (Andrea Bermudez, Yolanda Padron); and "Construction of a Phonological Development Test in Spanish and English (PHDESE) for Bilingual Children" (Virginia Gonzales). (LB)

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Lilliam M. Malavé, Buffalo
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TABLE OF CONTENTS

Bilingual Education and Bilingualism: Realities in the Twentieth Century

Challenging Mainstream Myths with Bilingual Excellence 1
- Ana C. Zentella

Bilingualism in Canadian Education 16
- Georges Duquette

Demographic Characteristics of Hispanic Students in Higher Education 27
- Julia Coll

Current Ideologies and Models in Bilingual Education

Bilingual Teachers' Ideologies in the Integration of Hispanic and Southeast Asian Immigrant Students: An Initiative Between Practitioners and Researchers 40
- Martha Montero-Sieburth

Integrating Language and Context in the Preparation of Bilingual Teachers 57
- Robert D. Milk

A Model for Implementing Bilingual Education 71
- Roy E. Howard

Effective Instructional Strategies in Bilingual Education

The Effective Schools Movement: Implication for Title VII and Bilingual Education Projects 83
- Betty J. Mace-Matluck

Contextual Elements in a Bilingual Cooperative Setting: The Experiences of Early Childhood LEP Learners 96
- Lilliam M. Malavé

Analyzing Hispanic Students' Science Problem-Solving Skills 123
- Stephanie L. Knight & Kersholt C. Waxman

Examining the Cognitive Reading Strategies Used by Hispanic Elementary Students While Reading Spanish 138
- Yolanda N. Padrón

Evaluating the Effectiveness of Writing on the Comprehension and Retention of Content Reading in Bilingual Students 151
- Andrea B. Bermúdez & Doris L. Prater

The Effects of Parent Education Programs on Parent Participation 159
- Andrea B. Bermúdez & Yolanda N. Padrón

Construction of a Phonological Development Test in Spanish and English (PH De SE) for Bilingual Children 171
- Virginia González

CHALLENGING MAINSTREAM MYTHS WITH BILINGUAL EXCELLENCE

Keynote Speech, National Association for Bilingual Education
Houston, Texas - April 30, 1988

Ana Celia Zentella

On the twentieth anniversary of the Bilingual Education Act (April 29, 1968), we find ourselves still encountering strong resistance from government officials who propose severe budget cuts and program restrictions, from national organizations that lobby for English-only amendments that would eliminate or curtail bilingual education, and from school districts that do not comply with legal mandates to serve the needs of limited English proficiency students. Not surprisingly, given the climate, many monolinguals and even some bilinguals do not understand the objectives or methods of bilingual education. They have been confused and misled by charges that it is pedagogically unsound to teach in two languages, that bilingual education doesn't teach English, that it doesn't move children into all English programs fast enough, that it segregates the children, and that it puts them at a cognitive disadvantage. Actually, these myths are getting harder and harder to defend as the research of Willig (1985), Hakuta (1986), McLaughlin (1978), the linguists at the Center for Applied Linguistics, the presenters at NABE's annual meetings, and that of the government's own evaluators (Government Accounting Office, 1987) contradict the spurious charges. The facts are that bilingual education does work and that the stronger a native language component a program has, the more effective it is in teaching English. Also, the more rigorous the evaluation of a bilingual education program, the more it shows that it works (Willig, 1985).

Yet the dilemma remains. Bilingual education is needed, it is effective, and it is still not accepted. Why? My own sociolinguistic work in Puerto Rican communities in Philadelphia (Marlos and Zentella 1978), New York (Zentella 1981, 1985, 1988) and Puerto Rico (Zentella forthcoming), and that of many others in the Puerto Rican, Mexican and other language minority communities in the U.S. (collected in Duran, ed. 1981, Fishman and Keller, eds. 1982, Amastae and Elias-Olivares, eds. Elias-Olivares 1983, Elias-Olivares et al., Eds. 1985), indicate that part of the explanation lies in the inappropriate models used to judge our kind of bilingualism.

Language minorities in the United States, primarily the 15 million speakers of Spanish, present three major challenges to widely held beliefs about bilinguals and bilingualism:

1- the definition of an ideal bilingual,
2- presumptions about the deterioration of languages,
3- the prerequisites for the maintenance of stable bilingual communities.

Who or what is an ideal bilingual? Many people equate extent of lexicon with proficiency, so they ask us, "Can you say 'bicycle spoke' in your native language?" Do you know the word for 'door hinges'?" Others attempt to probe the subconscious ordering of languages in the bilingual's repertoire in order to establish true dominance. They ask us, "Which language do you dream in?", "Which do you speak under great stress?", and even, "Which language do you make love in?" Finally, there are those who, in the pursuit of a more scientific, empirically based definition, ask us to submit to a battery of speaking, reading, writing, and comprehension tests, in the expectation that ideal or true bilinguals will score identically in both languages. Such an unlikely person, perhaps best designated "ambilingual", is a rarity because, "For a bilingual to be equally proficient in both of his or her languages, he or she would have to balance every experience encountered or carried out in one language with an equivalent experience in the other language" (Valdes 1988: 115). The definition of a bilingual that is most widely accepted is usually very broad, e.g.,: "an individual who has more than one competence, that is, who can function to some degree in more than one language" (Valdes op cit: 114). A bilingual is not, after all, two monolinguals stuck together, but rather someone who demonstrates a wide range of proficiency levels in each of the four primary language skills in each language, and these skills vary over a lifetime. In lower working class language minority communities in the U.S., there is a special need to expand students' formal oral and literate registers in English and the language of the home, with special recognition of the value of non-standard dialects. Legislators, educators, and the general public should abandon the pursuit of the mythical ideal bilingual in favor of these appropriate and realistic objectives as the successful outcomes of bilingual education.

A classic linguistic definition of an ideal bilingual comes from Uriel Weinreich's seminal work (1953) on languages in contact. Based mainly on his knowledge of European bilinguals in the first half of this century, Weinreich maintained that "The ideal bilingual switches from one language to the other according to appropriate changes in the speech situation but not in an unchanged speech situation and certainly not within a single sentence." The experiences of many U.S. language minorities, who are in close and repeated contact with members of the dominant culture, challenge this restricted definition; it is precisely the ability to switch languages in an unchanged speech situation and within a single sentence that is the hallmark of a fluent bilingual in many communities. This ability to alternate languages, often mid-sentence, called code switching in the linguistic literature, is sadly misunderstood, and leads to inaccurate and damaging charges of language deterioration. Bilinguals in the U.S. have been accused of destroying their mother tongues and of ruining the English language as well. Spanish speakers have been denounced for creating a Tex-Mex, as it is called in Texas, or a Spanglish, as it is called in the Northeast. When the Chinese do it, they're accused of creating a Chinglish; the Finns were blamed for a Finnglish; and recently the Japanese in Japantowns and even in Japan are worried about Japlish. These notions of deterioration and indictments for creating a supposed third language are based on gross misconceptions of the processes of code switching and word borrowing. More critically, they create feelings of linguistic inferiority and contribute to the educational failure of language minority students.

The linguistic facts are that code switching is a very highly complex, rule-governed language alternation which demonstrates the ability of the bilingual to manage two grammars (not just one) and to map the grammar of one language onto the grammar of another at precisely equivalent points. How do children learn to accomplish this? In New York's Puerto Rican "Barrio", for example, children see that some people are addressed in one language and others in another, and they imitate this pattern, particularly with monolingual adults. At an early age, they can alternate between L1 and L2 in order to accommodate speakers according to their linguistic dominance. In example no.1, below, 8 year old Maria, a student in a bilingual program who is buying a snack in her local bodega (grocery store), changes language four times to address her English dominant friend who is not in a bilingual program (F), the Spanish dominant bodeguero (B), and a monolingual Spanish toddler (T):

1. F to M: Buy those. (pointing to chips)
M to F: No, I buy (sic) those better. (selects pretzels)
M to B: Toma la cuora. ["Take the quarter."]
M to F: What's she doing here? (referring to toddler)
M to T: Vete pa' dentro. ["Go inside.']
M to F: C'mon, let's go.

This ability to meet different speakers' linguistic needs by alternating languages is then extended to meet different discourse needs in a single conversation with another bilingual. Code switches usually occur in full sentences (inter- sententially) which the child knows how to say in either language, thus providing evidence that s/he can juggle two distinct grammars:

2. "Tu sabe' donde estaba? ['Do you know where it was?']
In my socks!"
3. "Hablamos los dos. We speak both." (repetition)

When parts of sentences are switched (intra-sententially), this does not occur in an ad-hoc fashion; it is governed by complex grammatical rules. Shana Poplack's work (1983) has demonstrated that bilingual code switching demonstrates the ability to keep the integrity of the grammar of both languages intact, i.e., no harm is done to either language. In examples 4-6 below, 6-8 year old children switch for parts of speech that are equivalent in Spanish and English:

4. My mother got the pasajes ['airline tickets'] already.
5. Give me a kiss o te pego. ['or I'll hit you']
6. I remember when he was born
que nacio bien prietito, ['that he was born real dark']
que ['that']
he was real black and my father said
que no era hijo d'el ['that it wasn't his son']
because
era tan negro. ['he was so black'.]

It is important to distinguish bilingual code switching from the kind of sentences produced by some speakers, like the Peace Corps volunteers I knew who, after two years of language training and living in Latin America, went to the airline office and said, "Yo want volar to Kansas manana. Necesito buyo ticketo." Such sentences violate code switching's grammatical constraints in ways that the seven year old who said no. 6 above would not find acceptable.

That boy was able to switch independent and dependent clauses with and without conjunctions, all in grammatical Spanish and English, yet he is growing up with a sense of inferiority about a skill that should be a source of pride because too many people, including some teachers, label it as deviant, and destructive to both languages. Thus, an advantage is turned into a disadvantage, and instead of being encouraged to use code switching as a base for the further development of each of their languages, too many children lose confidence in their Spanish altogether and never develop excellent proficiency in English.

Code switching is valuable not only because it exemplifies bilingual linguistic dexterity, it is also a very powerful communicative discourse strategy. At least twenty-four discourse objectives are accomplished by code switching among the bilingual children of East Harlem, but most are not at the level of conscious awareness (Zentella, 1981, 1985). If you ask residents why they switch, most will answer, "I can't remember a word or expression so I turn to the other language for it." Unfortunately, the community has a deficit definition of code switching, as if it were limited to what I call "crutching", i.e., using one language as a crutch to stand in for the other. This is understandable since crutching occurs at the level of conscious recall. Although switching does indeed serve the valuable purpose of allowing us to fill in forgotten or unknown words or phrases, it is much more frequently employed for other important discourse strategies, e.g., emphasis, repetition, attention attraction, quotation, and mitigation and aggravation of requests, among many others. Moreover, the facility of calling upon two languages in order to more fully express oneself becomes a defining characteristic of community membership. Because of the important social and cultural discourse functions that code switching serves, bilinguals feel hampered whenever we are constrained to function in one code only. We feel most at home when we can call upon our full linguistic repertoire, and our switching back and forth reinforces our ethnic bond with the other members of our community. It also makes a statement that we belong to two worlds. We reflect in our code switching that ever present ideological tension between wanting to integrate into the larger society so badly in order to acquire the better material conditions that were promised if we assimilated while, at the same time, not wanting to lose our ties to our culture, to our group identity and to our families. In other words, code switching is our way of saying, "We belong to these two worlds and want to be part of them both, but don't make us give up one to be part of the other. It's too high a price to pay."

Equally as misunderstood as code switching, and often confused with it, is the process of word borrowing. Although single words in either language may constitute an intra-sentential code switch, such as "pasajes" in no. 5 above, words that are borrowed, known as loans, usually are incorporated into the subordinate language from the dominant language by many speakers on a regular basis, i.e., they become difficult to distinguish from other words in the borrowing language because they have been integrated into it phonologically, morphologically and syntactically, e.g, "quora" for 'quarter' in no.1. All languages that are in close contact experience borrowing, as attested to by the French lexicon in English, but not all loans are equally admired. Whereas there are many English speakers who have no trouble with--indeed are enamored of--peppering their conversations with comments on the "denouement" of the play, their feelings of "deja vu", and their purchases in "boutiques" --and think it's all very "chic"--they become apoplectic if they hear "lonche" 'lunch', "trobol" 'trouble, or "roofo" 'roof'. If I were to criticize them, probably they would say, "C'est la vie." Clearly, there are racial and class biases in language attitudes, and I shall address this vital issue below. Here we wish to underscore that neither code switching nor word borrowing symbolize linguistic deterioration.

The third myth about bilingualism presently being challenged in the United States is the notion that there must be absolute compartmentalization of the languages in order to maintain stable and societal bilingualism. This belief leads teachers to tell parents that their children will become confused if they are spoken to in two languages at home, especially by the same speaker. They are told the children will be unable to learn Spanish or English, despite the lack of linguistic research evidence to support such a claim. What is known is the impact of the positive or negative attitudes in the wider community towards each of the children's languages, and the role played by the socio-economic power of the language groups. When the language of the home and the language of the school are equally respected, e.g., when the students are part of the middle class, children do not grow up ashamed of, or confused by, being bilingual, or being spoken to in two languages.

The idea that the separation of languages is necessary stems from the insistence that the Fishman model of diglossia (1967) applies to every bilingual community. This model contends that, in order to avoid rapid language loss, the languages of the community must function in separate domains, e.g., the mother tongue should be used only in the home and the religious domain, and English should be limited to the public domain, e.g., the schools and the institutions. When one language enters the other domain, a stage immediately preceding total language loss and shift is predicted; that has been the pattern for other immigrant languages. It is also true that there is presently a lot of language loss in our immigrant communities today. The 1980 census revealed that 1/2 of Hispanic children in the Southwest and 1/5 in New York are English monolinguals. In fact, if it were not for the constant immigration of Spanish monolinguals, there would be even much greater Spanish loss, since the rate of loss among Hispanics exceeds that of former immigrant groups (Veltman 1983). The maintenance of minority languages does have more to do with migration figures than anything else, but there are also other social, political, and cultural realities involved.

No language minority community is exactly like another, and the bilingualism of one group cannot be generalized to account for any other, even within the same ethnicity. The Lakota differ from the Pueblos and the Navaho and also from other Lakota on different reservations, no Chinatown is a duplicate, and Los Angeles Chicanos differ from those who live in El Valle or Fort Worth or Albuquerque. Similarly, the language attitudes and loss/maintenance patterns of Puerto Ricans in Gary, Indiana have been distinguished from that of those of "El Barrio" in New York (Attinasi 1985). It goes without saying that evaluating or predicting the bilingualism of these groups by comparing it to a model based on European immigrations from other centuries is even more inappropriate, given the differences in history, culture, religion, reasons for migrating, and room for immigrants in the dominant economic structure of the time. In addition, whenever such comparisons are made, the groups with a stigmatized racial and class background always lose.

Their different ways of doing things are then inevitably branded as deviant, not as unique responses to unique circumstances.

Given the particular socio-economic realities of some of our communities--for example, in the Rio Grande valley of Texas and in New York's barrios, they follow a generational model that differs from the model that the European immigrants fashioned, i.e., language loss by the third generation. In the New York Puerto Rican community, children become English dominant during their adolescent years and may stop speaking much Spanish, especially as they venture into other neighborhoods. When they get married, however, most are forced to remain in their own community because their dire economic situation and discriminatory housing policies do not allow them to move away. These young people then learn to assume the adult roles and the languages that go with those roles as they integrate themselves into social networks which include many Spanish-dominant speakers. As young adults then, their Spanish-speaking abilities are rekindled as they begin to travel to Puerto Rico to introduce the new babies and/or to attend family funerals, etc., and Spanish literacy skills are called upon when they must answer family letters. In this way the community produces third and fourth generation bilinguals, in contrast to loss by the third generation that characterized European immigrants of the late nineteenth and early twentieth centuries (Pedraza, Attinasi and Hoffman 1980). Many of them left their ethnic neighborhoods and joined the middle class, and now judge other immigrant experiences based on their own.

I have offered three reasons why--from a socio-linguistic perspective--bilingualism and bilingual education in language minority communities still are encountering stiff opposition. As disagreeable as it may be, we cannot ignore another, less rational reason, one that expresses little faith in the abilities of particular groups because of their racial characteristics. When we study the similar history of exploitation of Native Americans, Mexicans, and Puerto Ricans, we come to realize that the racial mixtures that they represent have denied them the social and economic integration granted to equally poor and unskilled, but white, immigrants. Another experience that Indians, Mexicans and Puerto Ricans share is that of being forcibly incorporated territories in the American political system. As part of that experience Indians, Mexicans and Puerto Ricans suffered the imposition of English in their own territories and in every aspect of their lives, at the expense of their native languages and cultures. This was not the case for the new immigrants who are arriving today or the ones who came before in the eighteenth and nineteenth century, and it helps explain why we are relegated to what Ogbu and Matute-Bianchi (1986) have designated as our "caste" status in the United States. For these reasons Indians, Chicanos, and Puerto Ricans are more similar to Afro-Americans, another "caste", than to the other non-English- speaking immigrants, even those who come from Latin America. It is these singular, shared aspects of their history in the U.S. that contribute to the continued marginal social and economic position of the castes, but these facts are not considered by those who prefer racist explanations. That such explanations continue to be popular is apparent in the following sentences from a report by Dunn (1981) on "Bilingual Hispanic Children on the U.S. Mainland."

> While many people are willing to blame the low scores of Puerto Ricans and Mexican-Americans on their poor environmental conditions, few are prepared to face the probability that inherited genetic material is a contributing factor. . . . While it is a very delicate and controversial topic, race, as a contributing factor, cannot be ignored . . . most Mexican immigrants to the U.S. are brown-skinned people, a mix of American Indian and Spanish blood, while many Puerto Ricans are dark-skinned, a mix of Spanish, black and some Indian. Blacks and American Indians have repeatedly scored about 15 IQ points behind Anglos and Orientals on individual tests of intelligence (pp. 63-64).

As the daughter of a Mexican father and Puerto Rican mother, I am expected to embody the worst mixtures possible, resulting in a hopelessly inferior IQ. Not unexpectedly, Dunn is far kinder to Cubans: "Cuban-Americans in the United States are more prosperous and better educated than Mexican-Americans and Puerto Ricans and many of these people are of mostly Spanish blood." He seems unaware that second-generation Cuban high school students are dropping out in high numbers also (Fernandez, personal communication).

When this kind of ideology rears its ugly head, we must beware of it permeating our educational policies in ways that lead schools to expect failure, to program failure, to teach failure, and as a result, to reap failure. Bilingual education must confront these myths about genetic inferiority head-on, and rebut them with bilingual excellence. We continually must be alert to ensure that the message that children receive in our bilingual classrooms is radically different from Dunn's. The welcome that our children and their language and culture get in our programs, the commitment of the teachers and their ability to work with students and their families towards bilingual excellence --all an integral part of bilingual education-- are momentous contributions. But in the face of well financed and powerful critics, and in an era of permissive attitudes towards racism disguised as research, we cannot be lulled into complacency. Happily, our awareness of the issues and the enormity of what is at stake enable us to confront our detractors with an expanded vision, and innovative research allows us to re-evaluate our methods and materials accordingly. In the area of language, several recommendations follow from the research on which we have reported above.

When children leave the homes and streets of the barrios, the Asian-towns, and the reservations, they enter school to find that the schools stress and reward one linguistic code above others--standard English--and the mainstream ways of using language that accompany that code. Bilingual programs allow another standard code--that of the native language--into the classroom. This approach works best for students who are exposed to standard English and to the native standard in their homes and communities, but it shuts the door on the many ways of speaking and learning that most of the children in language minority communities bring with them, i.e., their non-standard Black/lower working class English and their non-standard native dialects. It does not teach from the students' strengths; worse, it makes them come to regard their language strengths as weaknesses. As a first step in reversing this trend, we can use languages in meaningful and realistic ways that flow from a creative expansion of the educational experiences that we engage children in. This approach, e.g., "small collaborative academic activities requiring a high degree of heterogeneously grouped student-to-student social (and particularly linguistic) interaction which focused on academic content" was the key instructional strategy in effective bilingual programs studied by Garcia and Garcia (1988). In keeping with the goal of fostering an expanded linguistic repertoire for all children, classrooms should allow for non-standard dialects and code-switching at the linguistically appropriate moments. They should also provide a wide range of opportunities that require understanding, speaking, reading and writing the formal varieties of English and the native language as an integral, not super-imposed part of the group's activities. The work of (Cummins 1979) and others helped us to understand how knowledge of L1 is inter-dependent with and transferable to L2 . The same can be said about informal and formal styles, and standard and non-standard dialects, i.e., that the knowledge of the forms and functions of a style and/or dialect in one language is transferable to that style or type of dialect in the other language, and need not be acquired at the expense of another. An expanded stylistic and dialectal repertoire is a good unto itself, and it also builds the strongest base for proficiency in English; this is an essential component of bilingual excellence.

The bilingual excellence that we offer our students is incomplete if it develops their dialectal and stylistic repertoires without cultivating their ability to use language to learn in new ways. It is not enough to know how to speak, read, and write English and the native language if we don't know how to use these skills to take knowledge from the world in ways in which schools and other mainstream institutions expect. Every culture imparts these ways of using language along with the linguistic forms of the language; that is why we cannot assume that a child who has learned English in our schools is using it in the ways in which a native English speaker does. It is possible to speak in English, yet talk like a Vietnamese, or Haitian, etc.

Many of the arguments in favor of bilingual education have focussed on the mismatch of linguistic codes as the source of educational failure among language minorities. However, recent research is alerting us to the problems caused by contradictions among different culture's ways of using language to teach and to learn (Heath 1982, 1983, 1986). Just as the phonology, morphology, syntax and semantics which they bring from their homes and communities can play a crucial role in their acquisition of those codes required in the schools, similarly, their cultural behaviors linked to learning and teaching can serve as the departure point for learning what Heath (1986) calls the "language genres" required in mainstream institutions. These genres include: label quests, meaning quests, recounts, accounts, event casts, and stories (see Appendix A).

Children who come from mainstream, school-oriented communities have had extensive practice in these genres before they reach kindergarten. Understandably, they will have less difficulty with participating in the routines that make use of these genres, and which characterize teaching in mainstream schools, than do children who are used to other genres, or to a different ranking of the genres. For example, label quests are the dominant form of language genre, particularly in the early grades, in mainstream schools. A label quest links items and attributes or is a question for which the questioner knows the answer, such as "What's this/that?", "How much is two and two?", "Where is your nose?", "How many fingers are these?" "What color is the ball?" In later grades, label quests may seem more complex: "What were the three principal reasons for the Civil War?", "Who did Hamlet kill, and why?", etc., but the purpose is the same. The teacher has the answer in her/his head and is checking to see whether or not the student can respond with the correct item(s), often out of context. Essentially, the label quest is a form of test. This is how the mainstream raises its children; listen to the parents who are pushing the latest fashionable stroller around, and you will hear many label quests. Listen to teachers in classrooms and you will hear many label quests. The prevalent use of this language genre is an effective introduction into a production-oriented society that classifies and categorizes, and, I believe, an effective way of expressing and maintaining the power differences between authority figure and child. It exemplifies the belief that it is appropriate and important for authority figures to test in order to teach, in order to punish or reward accordingly. This is the predominant mainstream style of raising and educating children, but it is not the prevalent way of using language to teach in non-mainstream communities.

Even though our own background may not have been mainstream in the ways summarized by Heath (1982), i.e., school-oriented, upwardly mobile, committed to promptness and linearity, and critical of others who do not share these norms, those of us who became educators became so mainstream in the process that we come to believe that this is the way in which everybody learns. Even worse, we may believe that those who do not learn in this way come from a "bad family", i.e., that parents who do not teach their children labeling are not raising their children correctly. So, if Juancito or Fabienne come in to first grade and don't know their numbers, or when their birthday is, or what color is red, or how old they are, and they can't respond to other label quests, some teachers decide that their parents are not interested in their children's education. Obviously, such a negative attitude dooms any kind of efforts to reach parents and work with them; we cannot work with people to whom we are communicating that they are doing a bad job of raising their children.

We do not have to wait until the research that gives us insight into different cultures' ways of teaching and learning is completed so that we may incorporate them in our classrooms, before we can help students learn different language genres. One immediate part of the solution is to allow children to talk more in our classrooms. Less than ten percent of the time spent in U.S. classrooms is occupied by children talking. Children must talk more in order to get practice in different dialects and styles as well as genres. Increased opportunities for meaningful talk will allow for accounts, stories, analogy, creative performance, collaborative discussion, role playing, joking, proverbs, teasing styles, imitation, translation, etc., between students and teacher, and among the students. This real language use sets aside repetition drills, fill-in sheets, and lessons on punctuation and grammar, so as to tap the variety of ways in which each child learns best and to make them proficient in others which they may need.

We can take the defeatist position that the definition of bilingual excellence proposed here is too much work, and that there is too much diversity to deal with. We may satisfy ourselves that our real responsibility as educators is to stress the code of wider communication, i.e., standard English, or the standard native language. That is what has been done, and it has had limited success. If we take that position, we lose the opportunity to teach large numbers of children in the ways in which they can excel and in which we can enjoy teaching more. Most important, we renege on the real promise of achieving bilingual excellence through bilingual education. Bilingual education was not conceived as an English teaching program only; it was not intended as a remediation program, and it was not designed as a minority employment program. It was to be a crucial step in the liberation of the language communities that were most oppressed in the U.S. I define liberation in this context as the right to be educated well, to learn in one's own native language and in English, and to develop one's native language as well as to become proficient in English; all contribute to liberation from crippling negative stereotypes.

Tackling bilingual excellence means tackling the message of inferiority and failure conveyed by inappropriate methodology and materials. It repudiates teaching our children in ways that communicate to them that the language or the dialect that they speak, or the ways that they speak it, is what holds them back, and causes their communities' failures. Language is not the main issue but a smokescreen. Ask Indians and Afro-Americans who have lost their native languages if speaking English only has opened the doors of affluence and acceptance to them in the U.S. Cubans have the highest percent of monolingual Spanish speakers (30%) among Hispanics nationwide, yet earn $10,000 more per annum. In contrast, Puerto Ricans in New York know more English than the city's other Hispanics but earn $4,000 less. Clearly, the real cause of failure is an educational and political system that has not served some groups of children's needs because of its disabling approach. It blames the victims: the parents, the children, their language, their culture, or poverty, and it equates difference with deviance. We choose to work in education because we believe it is possible to serve all student's needs by repudiating the disabling methods and materials and messages in favor of a liberating, critical pedagogy: this is how many of us have achieved bilingual excellence in our own lives and in our classrooms.

If we are to realize this goal on a larger scale, we must challenge the myths about "ideal" or "true" bilinguals, repudiate erroneous and biased evaluations of code switching and word borrowing, and discard inappropriate models of stable community bilingualism. The ultimate goal is to have every child, not only those enrolled in bilingual education programs, attain bilingual excellence; language minorities are paving the way, and their contributions will be both fundamental and revolutionary. Not only will they take their place among the next century's entrepreneurs and economists, astronauts and architects, poets and peacemakers, they will contribute also to the resolution of the nation's linguistic and social/cultural insecurity. Our students can give the country the confidence to see that the browning of America is underway for its benefit, and that if the country is changing what it looks like, so it must change how it looks at itself. Home is not where only English speakers reside, and the American dream is not dreamt in English only. Home and the American dream are: life, liberty, and the pursuit of happiness. These are the principles on which we base our national unity and which the Constitution must protect, not destroy, and which our classrooms must promote, regardless of racial, cultural, and linguistic differences. This is the definition of excellence that our students must learn and pass on.

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Appendix A

Language Genre in Mainstream School-oriented Communities and School Activities

(From "Sociocultural Contexts of Language Development," Shirley Brice Heath, in Beyond Language: Social and Cultural Factors in Schooling Language Minority Students. Bilingual Education Office, California State Dept. of Education: Los Angeles. 1986.)

I Label quests:
Adults name items and their attributes or ask for their names: "potato, hot potato", "Whats this?", "Who's that?". Teachers and textbooks ask "what" and "what kind of" questions before "why", "how" and "when".

II Meaning quests:
Adults infer the child's meaning, interpret behavior, or ask for explanations of what is meant or intended, e.g., interpreting baby's cry as "You're hungry.", or "Up, mama, up," as "You want to get up on my lap, don't you?" Teachers and texts ask students to explain the meaning of words, reading passages, pictures, combination of events, and their own behaviors.

III Recounts:
Prompted by adults, children retell experiences or information known to both teller and listener, e.g., "Can you tell Daddy what happened to you and Mommy today?" Teachers and tests ask children to provide summaries of materials known, to recount facts, and to display their knowldge through oral and written recounts.

IV Accounts:
Generated by the teller, accounts provide information that is new to the listener or new interpretations of information that the listener already knows, e.g., telling parents about a party they attended or explaining why the hot water is leaking again. Schools allow few occasions for recounts in the early grades, except for "show and tell", but at the highest levels of ability grouping and in higher education they play a more prominent role.

V Eventcasts:
Individuals provide a running narrative on events currently in the attention of the teller and listeners (as in sportscasts) or forecast events to be accomplished in the future, e.g., We' ll get dressed, then we'll have our bottle, and then we'll go see if we can take a ride to pick Daddy up from work."

VI Stories
Stories are fictional accounts which include some animate being who moves through a series of events with goal-directed behavior, e.g., fairy

tales, Bible stories. In school, from basal readers to senior-high history texts, fictional stories supplement factual or expository prose. Students learn to listen, read, draw morals and thematic statements, and how to craft their own prose.

BILINGUALISM IN CANADIAN EDUCATION

Georges Duquette

Abstract

Bilingualism in Canada differs to some extent from bilingualism in the United States. That is due partly to the historical and socio-political realities that have confronted each nation's populations. It is also due to some basic facts about population distribution, social needs and educational gains of minority populations, as well as the developed outlooks by minority and majority groups and their expectations of each other over the last twenty years. The article discusses these issues and identifies some national trends in the area of Canadian bilingualism and multiculturalism, it also provides some practical recommendations for future action and research in areas of concern to both countries.

INTRODUCTION:

This article will focus on bilingualism and multiculturalism in Canada. To achieve that purpose, it will:

1. highlight the more obvious similarities and differences that exist between Canada and the United States bilingualism;
2. provide some facts and comments about population distribution in Canada;
3. elaborate on Canada's regional perceptions of bilingualism;
4. focus upon existing trends and their possible impact on Canadian society;
5. describe Canadian language education programs presently in effect;
6. address briefly the question of cultural identity, and
7. offer comments about multicultural understanding and multilingual proficiency in both countries.

1. Bilingualism in Canada and the United States: Similarities and Differences

- There exists some parallels between the perspectives of the U.S. and Canada on bilingual education. Among the parallels that are shared are minority groups' attempts to: preserve their cultural heritage, preserve their identity, gain acceptance and recognition of the inner potential of their group members, develop and maintain the minority language, get equal access to educational opportunities, receive proper identification and assessment of educational needs, and have access to culturally adapted and linguistically appropriate pedagogical materials.

However, there also exists notable differences in attitudes and educational programs between the two countries. For instance, instead of "bilingual education", Canadians refer more often to first and second language education (thus separating each language-oriented cluster of educational experiences). Here are other differences.

a) In contrast to the U.S., the historical development of Canada and its ensuing political structure has meant (at least at the federal level) that two cultural groups, French and English, have each been encouraged to keep, maintain, develop, and promote their heritage as the two founding peoples of Canada.

b) In the last few years, the term "bilingualism" (the comprehension and care of two languages) has meant something different for Canadians than it has meant for most minority and majority language speakers in the U.S. For instance,"bilingual schools" in the United States has had positive connotations because the alternative was usually an English only environment while in Ontario, for instance, bilingual French/English language schools were replaced by French (only) language schools. The bilingual school policy was perceived by the French Canadian population as a formula for assimilation since the majority language would dominate and thus prevent sufficient development of the cultural background and native tongue of French students.

c) Because of the Federal Government's emphasis on the need for services in the French language, it was deemed worthwhile for English Canadians to become bilingual and thus learn French through government programs, French Core and French immersion programs. French is now compulsory in all English Ontario schools. Also, it was determined that Core French programs were inferior to total French immersion. However, since it seemed impossible to have all students enrolled in immersion programs, steps were taken to upgrade French core programs more in line with a communicative approach. French became a compulsory school subject at the intermediate levels in English language high schools. In the U.S. no second language has been mandated in any of the states of the Union.

d) Other minority groups in Canada wish to preserve and maintain their own culture and language. Heritage language programs are now being offered in the largest centers where there are large ethnic populations. The Innuit people and other native Canadians define their own needs and assert their rights not only to their minority language, but also to territorial titles and to educational and political claims. They believe that members of the cultural group are the ones who are best suited to meet their own needs. Such initiatives towards self-determination is a trend towards unity in diversity rather than diversity in unity. Minority groups in the U.S. have not been so successful in their attempts to assert their rights to maintain their language and cultural heritage.

e) It should be remembered that in Québec, French is the majority language and that in northern Canada (the northern western provinces and the arctic region) native Canadians have a time-tested presence (as do French Canadians in Québec) as well as a certain traditional jurisdiction. When the aboriginal peoples agree and speak with one voice, they have a significant effect upon federal government policies that impact upon them. No minority group has become a majority in any of the states of the Union. Therefore, they have not been able to exert so much political influence in any particular jurisdiction.

2. Statistics and facts about the population distribution

Here are some facts regarding population distribution. According to the 1986 census, Canada had a population of 25,354,064 inhabitants with 4.2% growth.

Area	Population
Atlantic provinces (including Newfoundland, Nova Scotia, New Brunswick, and Prince Edward Island)	2,278,616
Québec	6,540,276
Ontario	9,113,515
Western Provinces (including Manitoba, Saskatchewan, Alberta, and British Columbia)	7,345,915
Yukon & Northwest Territories	75,742

However in CANADA:

1) 25% of the people are of single French origin or 6,093,160 persons (80% of whom live in Québec, which has 78% of single French origin);

2) 25% are of single English (British) origin;

3) 25% are of multiple origins (mostly British); and

4) 25% are of other single origins

The population distribution of Canada, particularly in its historical, geographic, and political sense had all the elements for becoming a truly bilingual, bicultural and multicultural country. The policies of the Federal Government during the last two decades were intended to transform this possibility into a reality. The creation of the Office of the Commissioner of Official Languages in Ottawa, the International Research Center for Studies in Bilingualism at Laval University, and the driving initiatives of movements such as Canadian Parents for French have all had a positive impact on the promotion and development of bilingualism in Canada.

However, the presence of the United States south of the border, with its 241,546,000 inhabitants, accounts for the overwhelming emphasis on English (particularly business transactions) in Canada as it does for much of the rest of the world. The resistance of some provincial governments to cooperate on policy issues with the Federal Government has also in large measure slowed down the process of bilingualism. Other substractive influences include the downward birth trend among French Canadians, the vital presence of English Canada in Québec (where a small percent of inhabitants have their own active cultural and political institutions), and the number of new Canadians who prefer to acquire English rather than French in the province of Québec. Included also are the renewed efforts of groups such as the movements for the preservation of English in Canada, and the "Confederation of Regions" political party whose aim is essentially the same as that of the English only movement in the U.S. These are all factors which if taken together have a negative and "slow down" effect upon the kind of bilingualism and biculturalism many in Canada would prefer.

3. Bilingualism and existing perspectives in different parts of Canada

Each part of Canada, with its own geographical context and culturally defined way of life, has its own character and particular political concerns. Each region has its own bilingual character, but its needs, hopes and aspirations vary according to the geography and distribution of the population. Therefore, the mentality and attitudes toward bilingualism and bilingual education also vary according to each region. To fully understand bilingualism in Canada, it is necessary to recognize the very specific character of each region.

a) The Atlantic Provinces depend primarily upon the sea. With the exception of northern New Brunswick and small pockets of Acadians (of early French descent), its population comes from well established English and Scottish traditions. These provinces have:

   1) a long history of fishing disputes between Newfoundland and France,

   2) French and French immersion programs as part of the curriculum in the schools,

3) "maritime" provinces (Nova Scotia, New Brunswick and Prince Edward Island) which appear to be more open to and tolerant of bilingualism,

4) Nova Scotia and Prince Edward Island, where there are now trends toward more French language schooling,

5) a conflict to determine whether to have French language or immersion schools. French parents would like to have their own schools to preserve their cultural identity but parents of children in French immersion desire French immersion programs. The solution appears to be a combination of French programs for both groups, but what are the consequences to cultural retention for the minority students when both the majority and minority groups participate in the same programs?,

6) Nova Scotia and New Brunswich with French language Universities, and

7) only one truly designated bilingual province in Canada, New Brunswick.

b) Québec is the cradle of French Canada. It has a unique French character and over the years its population has overflowed into New Brunswick and Ontario. It has:

1) Québeckers who called themselves "les Canadiens" (Canadians). They are a minority in the country but a majority in the Province,

2) a downward natal trend among Québeckers. In fact, the province has increased its child allowance to encourage its citizens to have more children,

3) free-trade, French immersion, and immigration influx that have also had an effect on the promotion of French in the province, and

4) Bill 178, the language policy of the Liberal government which has created further divisions among French and English speaking Québeckers, and between Québec and Canada.

c) Ontario is English, but has been so influenced by the presence of French Canada and Canada's capital, Ottawa, that the Province of Ontario is on the verge of being declared a "bilingual" province, like New Brunswick. Ontario:

1) has now passed bill 8, a law which guarantees essential services in French across the Province,

2) has the Movement for the Preservation of English. The President of Canadian Parents for French in Ontario said recently that it is a backlash to bilingualism mostly by some members of the older generation, but the attitudes are becoming more widespread,

3) has many elementary and secondary French language schools. A French Language School Board as well as a French Language College were created recently in Ottawa, and

4) is experiencing a trend toward the anglicization of its two bilingual universities and it is possible that a new French language university will be created.

d) The Western provinces have for years felt alienated from central Canada. Whereas their economy is dependent on its industrial base, the West depends on farming, forestry, and fishing on the Coast. The western provinces never felt the need to accept official bilingualism and rebelled against having "French thrust down their throats". However, the west has its own native populations and therefore its own claims in the area of bilingualism. These provinces:

1) provide the stongest resistance to bilingualism and the French language,

2) have not accepted easily constitutional guarantees and practices to protect French. (i.e.: The Manitoba language law controversy of a few years ago),

3) through their native claims have had an impact on western views toward minority needs,

4) have French language university education possible in Manitoba and Alberta,

5) include British Columbia with a diversified ethnic and French language population, but it is still very much an English-speaking province.

e) The Yukon and the Northwest Territories are areas of the country where the Innuit and other native people live alongside more recent newcomers to their lands. Their needs and concerns, as expressed when

Pope John Paul II visited them a few years ago, are those of other minority peoples which are often neglected.

4. Six trends are evident in Canada at the present time:

1. In education, French as a first language programs and French as a second language (core and immersion) programs seem to be working successfully. French language schools are widespread in Ontario, Québec and New Brunswick. Over 200,000 students were enrolled in French immersion programs in 1986. Heritage programs are on the rise, but the process has slowed as a result of increased pressure by groups such as CORE and the "Movement for the Preservation of English".

2. The pendulum of the 1970's that motivated the English population to see Canadian unity and French/English bilingualism as an asset to Canada's unique national character and heritage has now swung in the other direction. The western provinces (as well as parts of Newfoundland) are alienated from central Canada: Ontario, because of the political and economic power it holds, and Québec because of its political clout and the bilingualism policies of the last twenty years. There now exists an English lobby against French and a backlash against the bilingualism policies of the Trudeau era.

3. The advent of Free Trade between Canada and the United States, with its cultural and economic exchange and implications, means that there is more of a tendency to think in terms of a North American rather than a Canadian perspective. The influx of many new immigrants particularly in large Canadian cities appear to have different effects. In Montréal, their desire to speak mostly English have over the long term a negative impact on Canadian Bilingualism. The new Québec law against outdoor signs in English (in an effort to preserve distinctive cultural character of that province from continued rampant assimilation) has also contributed to a new, more indifferent and less accepting attitude toward French Canada and other minority groups. It should be noted that the population of francophones in Québec is shrinking while elsewhere it is increasing. In Toronto, existing bilingual and bicultural policies appear to give new Canadians a distinct Canadian identity of which they appear rather proud.

4. French and English nationalism are on the rise: When the Premier of Québec put forward Bill 178, three English-speaking cabinet ministers resigned because they thought it

was too tough on English. On the other hand 50,000 French people demonstrated in Montréal because they felt the bill was too weak to protect the French language.

5. A series of successes have created a trend in French Canada and among the Aboriginal people with regards to self-determination. This may provide the country with an example that will enhance previous progress in the area of bilingualism and settle matters in ways which substantially meet the needs of all minorities.

6. There still exists among some professionals, such as in the clinical language sciences and special education, an "English only" approach to understanding and meeting the needs of minorities. It is difficult for some unilinguals to understand needs they have not experienced or appreciate cultural differences when they are themselves living the norm.

5. Language Education Programs in Canada

There exists four types of language education programs in Canada.

a) The first type is by far the most widespread. It consists of a curriculum taught in the child's first language with a smaller, more or less extended education component in the second official language. For French language students who usually already know English, the second language is simply used as the medium of instruction. For English students, however, the second language time slot, called Core French (Ontario Ministry of Education, 1986) is most often used to teach the language itself. While changes are being effected (Fraser-Rodrigue, Davis, & Duquette, in Press) particularly at the teacher-training level as a result of the well-promoted communicative approach, progress and therefore change is still in this area.

b) A second type of language education is similar to programs in the bilingual schools that exist in the United States. It consists of providing instruction (in various proportions) in both languages. Although this approach was favored in the 1960's, the trend today for French and English populations has been to polarize more toward the teaching of the first language. This is why educators in Canada, instead of "bilingual education", we speak of first and second language education.

c) The third type involves French immersion programs (Ontario Ministry of Education, 1986). This educational program appeared to be a viable alternative to English speaking students who wished to pick up French as a second language. The success of immersion programs (Lapkin & Swain, 1982) is well known, but they are not often selected for French or other minority students. Some have proposed the mixing of French minority students with the English majority "immersion" populations, but such a decision is not recommended by some educators because of the differences in cultural backgrounds and the possible polarizing effects of the majority culture in classroom interactions.

d) A fourth type of language education applies to non-official minority language groups who wish to preserve their native tongue (Genesee, 1987). Heritage language programs have been created in order to protect, preserve, and enhance the cultural heritage and native language of non-French and non-English students. It is a first step, one that attempts to ensure not only the preservation but also the protection of that heritage that provides the cultural background and framework for meaningful language development.

6. Cultural identity

While much has been written about the importance of ensuring the development of first language skills in order to provide a basis for promoting additive bilingualism (Cummins, 1978; Landry and Allard, in press; Lapkin and Swain, 1982), there is a need to understand the meaning of language. Language means more than speech, it is a "shared social code" (Bryen, 1982, p. 7). Therefore to understand language, it needs to be contextualized and culturally comprehensible. If language is to social experience what ice is to water, then our concern about preserving language must focus our attention on those experiences that constitute its reality, in addition to those which constitute its code.

In Canada, where the emphasis is on language code and the population of French Canadians is decreasing, there is a definite decline in the desire by members of the larger population to continue living primarily in the French language. In Florida and California, however, where the Spanish population is on the rise and the emphasis on the Spanish way of life is increasing, there is a potential for a rich and flourishing new culture, a natural desire to speak the second language which is authentic to a people who has much to share.

A context can be shared by two different cultural groups, but a culture is related more to a particular group's thinking, its behaviour and general way of life. Context, it is true, is essential to language acquisition if language is to be date-driven, purposeful, effective, and functional. Culture, however, is also essential if language is to be concept-driven, integrative, meaningful, and personnally/collectively enriching. Language is elaborated through its social context (Landry and Allard, 1985), but it appears to be culture the one that brings with it the identity (Genesee, 1987; Duquette, in press) of the people and of the individuals that belong to its social circles.

7. Comments

In Canada, bilingualism and bilingual education have generally been seen in a positive way by those who have become bilingual and bicultural. The attitude generated against these processes appear, in large part, based on fears of change and on the negative impact that these changes might bring for individuals who are more comfortable with the status quo in a unilingual society. There is a need to understand bilingualism.

There is a need to look again at those elements which help the individual develop those skills which are needed to survive first in the home environment, then in the the educational system, and finally in society as a whole in line with the individual's aspirations and social needs. In a multicultural society, it is necessary for a person to understand, value, and respect his/her own culture before he/she can understand, value, and respect the culture of others. Social scientists must continue to conduct research and generate applications at the social, educational, and cultural levels.

Specifically, there is a need to understand better how: first language skills develop in the home and the home environment, the home culture contributes to the first language acquisition process, second language skills can be acquired in an additive (rather than substractive) mode and environment, and the acquisition of skills in proficient bilinguals impact upon their lives. There is also a need to encourage more self-determination for minority groups in the administration of their own schools, and in developing their assessment materials and providing their own special education services, as well as in becoming more active in community and political affairs that concern them.

Social scientists must: a) look more closely at the contributions of context and culture to the acquisition and retention of minority languages, b) recognize children's unique individual and cultural differences, c) understand that skill development takes root in the experiences of cultural contexts, and d) demonstrate the benefits of becoming bilingual and multilingual in (especially densely multicultural areas of our respective societies.

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DEMOGRAPHIC CHARACTERISTICS OF HISPANIC STUDENTS IN HIGHER EDUCATION

Julia Coll

Abstract

This study examined the demographic characteristics of a sample of Hispanic students enrolled at a Southwestern University. In connection with these data, the analysis proceeded to delineate the main reasons for enrolling in higher education.

It was found that Hispanic students who come to the University directly from high school and those who transfer from community colleges were very similar demographically, linguistically and academically speaking. Moreover, the reasons that influenced their decision to continue their education at the university level were identical. Those were: training in their career interest, overall training, quality of course instruction, professional competence of professors, expense of the institution and intellectual stimulation provided by University climate.

Based on these results, it is recommended that new initiatives be designed to restructure admissions and attendance patterns in college.

Demographic Characteristics of Hispanic Students

The incorporation of minorities in the higher education system in the United States has attracted a great deal of attention and has made impressive gains in recent years. Despite this, these groups, and especially Hispanics, continue to be underrepresented in post-secondary programs. Although Hispanics constitute the largest minority in the Southwest (Western Interstate Commission on Higher Education, 1984; U.S. Bureau of the Census, 1988), statistics show that they have the lowest level of education and the fewest participants at all levels of higher education (de los Santos, Montemayor and Solis, 1983; de los Santos, 1986; Santos, 1986; Olivas, 1986; Carnegie Foundation, 1987).

Education is generally associated with the key to a better life (Kellogg, 1988). The possession of a baccalaureate degree allows a person to move towards the middle and upper levels of society. As will be shown in the statistics below, because of the great underrepresentation in higher education, many Hispanics will not be allowed entrance to the higher levels of society.

According to the U.S. Bureau of the Census (1982), in 1980 the total Hispanic population was 14,498,932. That represented 6.4 percent of the total population in the United States; by the year 2050, the proportion will be 15 percent (Bouvier and Agresta, 1987). In five Southwestern states (Arizona, California, Colorado, New Mexico and Texas), the Hispanic population was 8,787,795 (U.S. Bureau of Census, 1982). In March 1988, this population was still concentrated in this region (U.S. Bureau of the Census, 1988). In 1982, about 11 percent of all Hispanics were under five years of age compared to 7 percent of the non-Hispanic population. Only 4 percent were 65 years old and over compared to 12 percent of the non-Hispanic (U.S. Bureau of the Census, 1982). Rivera (1982) discussed the predictions made in 1970 for the year 2000. He noted that fourteen U.S. border cities will have a population of more than a million Hispanics. The percentage of families with children under 18 years of age will be 5.6 percent in comparison to 3.6 percent for white non-Hispanics.

Although Hispanics comprise over 6 percent of the population in the United States, they have however not been represented proportionally in higher education: "Their enrollment is about one-third of what their percentage of the population would indicate it should be" (Carter and Segura, 1979). Recent statistics show that there has been an increase in enrollment during the 1976-1986 decade due to an overall increase in the Hispanic population, not due to an increment of Hispanics attending institutions of higher education (Evanhelauf, 1988).

Despite ambivalent attitudes and due to the demographic acceleration of Hispanics in the next two or three decades, they are expected to become the largest minority in the U.S. where they will force educational, political, and social changes (Kellogg, 1988). Because the demographic fact is a crucial point to consider in the treatment of this issue, it will therefore provide the theoretical contextual frame of reference for the study in question, and the Hispanic underrepresentation in higher education will highlight the magnitude of the problem.

This study was designed to examine the demographic characteristics that distinguished a sample of Hispanic students attending a Southwestern University. These demographic characteristics included: age, gender, family status, socio-economic status, academic background. How did two-year community college transfer students differ from students who came directly to the university? In connection with these data, the study described the main reasons given by this sample of students for enrolling in college.

REVIEW OF THE LITERATURE

Current research findings on the participation of Hispanics in higher education coincide with what other authors and researchers have stated in the past. That is, participation in higher education by certain racial and ethnic minorities in the United States historically has been very limited in relation to non-minorities (Arciniega, 1985; Olivas, 1986; Jaschnik, 1987; Evangelauf, 1988; Jackson, 1988). The conventional standards used to judge all students are still the same, and thus do not account for the differences and deprivations of minority students. (Carter and Segura, 1979; Haro, 1983; Vasquez, 1982; de los Santos, 1986).

The available data point out that among all the ethnic groups, the Spanish-speaking group has the lowest educational level, the highest drop-out rate, and the lowest number of students attending post-secondary institutions (Olivas, 1986). When Spanish speakers do attend, they are concentrated in two-year colleges (Evangleauf, 1988; Haberman, 1989). This pattern has persisted over the last decade, as the following figures from the most recent available data from the U.S. Department of Education seem to indicate.

In 1976, there were 384,000 Hispanic students (3.5 percent) enrolled at the college level; of which 174,000 (1.6 percent) were in four-year institutions, and

210,000 (1.9 percent) were in two-year institutions. The total number for white non-Hispanics was 9,076,000 (82.6 percent); 5,999,000 (54.6 percent) in four-year institutions, and 3,077,000 (28.0 percent) in two-year colleges. In 1986, the total number of Hispanic students in colleges was 624,000 (5.0 percent), 278,000 (2.2 percent) in four-year institutions, and 345,000 (2.8 percent) in two-year colleges. The total figure for white non-Hispanics was 9,914,400 (79.3 percent), 6,340,000 (50.70 percent) and 3,575,000 (28.60 percent) for four-year and two-year colleges respectively (U.S. Department of Education, 1988).

The statistics for the universities themselves are equally revealing. Webster (1981) found that, in 1968, the University of California at Berkeley had 496 Hispanics enrolled or 1.9 percent of the total student population. The University of Texas at Austin had 838 Hispanics enrolled, or 3.4 percent, the University of Arizona in Tuscon, 4.8 percent or 1,116, the University of Colorado 1.3 percent or 249, and the University of New Mexico in Albuquerque, 11.7 percent or 1,711. Enrollment figures for 1970 showed that for Mexican-Americans to be proportionally represented at the higher education level, the number of students needed to increase by 165,000. That is, it needed to increase from 50,000 to 215,000, or 330 percent. For Puerto Ricans, the number needed to increase by 45,000 or 225 percent (Webster, 1981). While the Spanish-surnamed enrollment in the nation's colleges increased almost three times between the years 1968 and 1972, as a percentage of the total college enrollment this population only increased from 1.7 percent to 2.4 percent (Lopez, Barela & Macias, 1976). A recent report from the U.S. Bureau of the Census reveals that the proportion of Hispanics 25 years old and over who completed four or more years of higher education, in 1988, was 10 percent. This percentage indicates a considerable increase compared to 5 percent recorded in 1970. The proportion for the non-Hispanic student population who had completed four or more years of college was 21 percent in 1988 and 11 percent in 1970 or twice as high as that of Hispanic students in both years (U.S. Bureau of the Census, 1988).

The National Commission on Secondary Schooling for Hispanics (1984) reported that the increase of Hispanic enrollment in college was 46 percent in 1972 and 43 percent in 1982. The enrollment rate for non-Hispanic whites was 52 percent for that same year. Out of those who entered college in 1972, they found that only 13 percent had completed a college degree by 1976.

Ramirez and Soriano (1981), in their research on casual attribution of success and failure, concluded that individuals attribute internal reasons for their success and external reasons for their failures. For instance, the strongest external reasons which students cited for not completing university studies were: inadequate financial help, and lack of good counseling and tutoring services (p. 405). In reference to counseling services, Casas and Atkinson (1981) concluded that the counselors studied in their research had a tendency not to differentiate between Anglo and Asian American stereotypes. However, Mexican-American stereotypes were well differentiated from the other two groups. This conclusion was made after they observed that the subjects in the study systematically grouped the Chicano stereotypes together, and confused the Anglo and Asian American stereotypes (p. 79). If these results are generalizable to counselors working with different ethnic groups, they may be associated with the kind of counseling service that has been provided to the minority student (Carnegie Foundation, 1988).

Another interesting feature of Hispanics' participation in higher education is the selection of careers. Hispanics are heavily concentrated in education, social sciences, and business administration at both the undergraduate and graduate levels. According to Ruiz (1982), as far as degrees earned by Hispanics, there is an obvious lower disproportion in the percentage of degrees and the percentage of the total population. Hispanics get closer to the national population with the associate degree received. As a point of fact they receive a higher number of associate degrees in relation to all the degrees earned by them. The correlation seems to be that the higher the degree level, the lower the percentage of degrees awarded. At the doctoral level, Hispanics are the least represented.

There is considerable evidence that shows Hispanics are less likely than non-minorities to complete high school, enter higher education, receive degrees and continue for an advanced degree (Duran, 1983). In addition, of those Hispanics involved in higher education, the majority are concentrated in two-year institutions (de los Santos, 1986; U.S. Department of Education, 1988). This redirects us again to the question: what are the factors that influence the entry of Hispanics into higher education?

This question is of particular importance because students have many and varied reasons for enrolling in a course of study. Students at the two-year college, for example, often take several courses to expand work possibilities, or for pleasure or curiosity (Coll and Brittain, 1985). The same may be true at four-year institutions.

Students who are registered for a degree and dropout are another matter. Olivas (1979) pointed out that patterns for dropping out reflect the different purposes for which students enter four and two-year institutions. In non-academic withdrawals, employment considerations appeared to influence two-year students more than four-year. Olivas (1983) also found that the attrition rate was higher in the two-year than in the four-year institution and that non-academic reasons overshadowed the academic ones. The Hispanic students who stay in an institution and do not drop out are a different case. This is the target student population of concern to this research. Duran (1983) found that there are two different categories of factors which influence Hispanic's participation in higher education: "personal factors," and "institutional factors."

Under the first category fall the students' personal characteristics such as gender, age, aspirations in life, self-concept, learning styles, ability to adjust to college life, level of proficiency in Spanish and English, previous preparation for college work, financial needs related to family responsibilities, and immigration status. External factors contribute to the second category. Among these are the characteristics of post-secondary institutions, their commitment to the education of Hispanics, faculty of Hispanic origin, extracurricular activities for Hispanic students, housing, available financial aid, etc.

Prior to entering college, Hispanic high school students are also subject to school, home and community experiences that profoundly affect their chances for candidacy to college. One of the most important experiences is academic counseling in school. This service is very limited and not oriented towards Spanish-speaking students (Committee on Education and Labor, 1985). Counselors are often influenced by ethnic stereotypes and therefore can have a built-in bias when counseling Hispanics (Casas et al., 1981; Vasquez, 1982; Duran, 1983; Fiske, 1988).

METHOD

The nature of this study was descriptive. It attempted to describe and interpret the status of a sample of Hispanics in higher education. This study examined the sample's demographic characteristics and the reasons that influenced their decisions to enroll in higher education. The subjects consisted of a random sample of 300 Hispanic students enrolled during the Spring 1986 at a four-year post-secondary institution in the Southwestern part of the United States. The University Student Inventory (USI) was used to collect demographic information. The first part of this instrument was developed by this investigator. Additional information about student's GPAs, class standing, transfer status, permanent residence, marital status, age, and sex was provided by the registrar's office. The second part of the instrument was adapted from the Higher Education Orientation Inventory (HEOI). The HEOI was initially developed by Field and Giles (1980) to determine student satisfaction with graduate education. The instrument was further researched and extended by Douglas (1985), and Douglas, Powers and Choroszy (1983) to measure reasons that influence a student's decision in choosing an institution of higher education. The items in this part were used to investigate the reasons that influence Hispanics in their decision to enroll in post-secondary institutions. The subjects were requested to rate the importance of the reasons on a six point scale which ranged from very unimportant (1) to very important (6). This section is discussed in depth in another publication (Coll, 1987).

RESULTS

Demographic Characteristics of the Sample

A total of 130 students returned the inventory, a response rate of 43 percent. All inventories were completed anonymously. The first part of the study explored the characteristics of a sample of Hispanic students at a four-year institution. Frequency distribution was the tool used to analyze the data. From the 130 surveys analyzed, 61 of the respondents were males and 69 females. The citizenship composition of the sample was 93.1 percent from the United States, 5.4 percent from Mexico, and 0.8 percent from other Hispanic countries. Of the 130 students, 79 percent were between 19-24 years of age, 17 percent between 25-34, and 4 percent between 35-45. The average age was 24 years.

In order to determine the socio-economic status of the participants, the Hollingshead (1957) two factor index of social position was employed. Occupation and education were the two factors used to estimate social position. These factors were combined for each participant in the study and placed in a continuum of scores. This continuum resulted in five categories: high, middle high, middle, middle low, and low.

The students' socio-economic status results indicated that 10.8 percent belonged to a high socio-economic status, 9.2 percent to a middle high, 20.8 percent to a middle, 32.3 percent to a middle low, and 22.3 percent to low.

Seventy percent of the respondents had as permanent residence the urban area where the study was conducted, 26.2 percent other cities in the state, and 31 percent out of state.

Linguistic Abilities

It was also found in the sample that 47.69 percent spoke Spanish, 36.15 percent spoke English and 16.15 percent spoke both languages in the home. The majority of the respondents rated their speaking, reading, and writing skills in English as either above average or excellent. The range of responses for Spanish was from none to excellent abilities in the mentioned skills. Only 32.3 percent had participated in bilingual education, and 10.7 percent received English as a second language instruction.

The majority of the subjects or 74.6 percent came directly from high school to the university, only 16.9 percent transferred to the university from community colleges, and 8.5 percent came from other colleges and universities.

Academic Characteristics

The data indicated that: 1) these students concentrated their studies in business, engineering, education, and social sciences, 2) the average GPA for males was 2.486, with 49.5 percent having GPAs above 2.000, and 3) the average GPA for females was 2.391, with 50.5 percent having GPAs above 2.000.

Characteristics of Hispanic Students Who Transfered from Two-Year Community Colleges

In the sample studied, 16.9 percent were students who transferred from two-year community colleges (54.5 percent were males and 45.5 percent females.) Their average age was 27 years. The great majority were born in the United States (90.9 percent), and the rest were originally from Mexico or another Hispanic country. Most (86.4 percent) of them lived in the urban area where the university is located, and 13.6 percent lived outside of the urban area.

The average household held occupations within the categories of clerks, manual skilled, semi-skilled, and non-skilled. However, 27.2 percent held occupations that required professional training. The average household had high school education, and over 40 percent had attended a college, were college graduates or had graduate or professional training. Their socio-economic index indicated that approximately 41 percent belonged to a middle or above socio-economic class, and 54.5 percent to a low or lower class.

The greatest percentage of transfer students were enrolled in the schools of business, education and arts and sciences. More than half (59.1 percent) were seniors, 18.2 were juniors, 18.2 were sophomores and 4.5 percent were freshmen. Their highest GPA was 2.49, only 9 percent had GPAs below 2.00.

More than 50 percent used Spanish as the language spoken at home, and the majority rated their proficiency in English and Spanish above average or excellent. Only 22.7 percent had some bilingual instruction and 9.1 percent had received ESL instruction.

Reasons that Influenced Hispanic University Students to Enroll in Higher Education

The second part of the study examined the main reasons that influenced this group of students to enroll in higher education. Identified as most important, "training in your career interest" (Item 20) was the first priority for both groups.

"Overall training" (Item 1) was the second most important reason for the non-transfer group, and the third most important reason for the transfer group. "Quality of course instruction" (Item 7) was the third most important reason for non-transfer, and sixth for the transfer students. "Expense of the institution" (Item 9) was rated fifth by both groups and "intellectual stimulation provided by training" (Item 4) was the sixth reason for non-transfer students, and fourth for transfer students.

Although both groups shared the same reasons, they varied slightly in the importance given to some of these reasons. For instance, "training in your career interest" was the first priority for both groups. The lack of programs in their career interest was cited in the literature as one of the four major obstacles for Hispanics to enroll in higher education (Haro, 1983). "Expense of the institution" was rated fifth most important reason by both groups. "Overall training", "professional competence of professors", and "intellectual stimulation provided by training" were more important for the non-transfer group, but "quality of course instruction" was more important for the transfer students (Coll, 1987).

Underlying Dimensions of the Students' Reasons

In order to better understand what were the reasons that influenced the decisions of Hispanics to enroll in higher education, factor analysis was used as a tool for reducing the number of variables or responses. Four factors were derived. These factors were rotated after extraction to maximize high correlations and minimize low ones. The technique used was varimax. The factors were labeled according to the size of the factor loading and communalities. The results revealed that there were underlying dimensions for the reasons used by this sample to decide to enroll in higher education.

Factor I, "Democratic environment and facilities", had the highest variance. The items loading in this factor were:

1. "Opportunity for independent thought and action in educational programs," (Item 15) 2. "The voice you have in influencing policies and procedures affecting students," (Item 11) 3. "Freedom in choosing coursework," (Item 12) 4. "Library facilities," (Item 10).

Factor II, "Internal and external cultural features." The variables loading in this factor were:

1. "Other students of my culture in the institution," (Item 31) 2. "Faculty of my culture in the institution," (Item 33) 3. "Special programs for Hispanics," (Item 30) 4. "Financial assistance offered," (Item 29) 5. "Parents wanted me to attend," (Item 23).

Factor III, "Academic quality of the institution," had the following variables:

1. "Training in your career interest," (Item 20) 2. "Quality of course instruction," (Item 7) 3. "Amount of required work in courses," (Item 19) 4. "Opportunity for professors students discussion in courses," (Item 8).

Factor IV, "Social Life of the Institution", had the strongest loadings from the following variables:

1. "Social life with fellow students," (Item 2) 2. "To meet new friends," (Item 28) 3. "Social interaction with professors," (Item 22).

TABLE 1

Means and Standard Deviations of HEOI Items for Non-Transfer and Transfer Students

HEOI Reasons Description	Non-Transfer (N = 97) M	SD	Transfer (N = 22) M	SD
1. Overall training	5.23	.96	5.22	.81
2. Social life with fellow students	3.94	1.27	3.45	1.33
3. Professional competence of professors	5.03	1.24	4.90	.97
4. Intellectual stimulation provided by training	4.85	1.22	5.18	.79
5. Intellectual climate	4.58	1.24	4.77	.75
6. Reputation of institution	4.62	1.13	4.36	1.21
7. Quality of course instruction	5.07	1.22	5.27	.82
8. Opportunity for professors/ students discussion in courses	4.58	1.26	4.68	1.17
9. Expense of institution	4.96	1.27	5.00	1.15
10. Library facilities	4.42	1.13	4.18	1.40
11. The voice you have in influencing policies and procedures affecting students	3.62	1.48	3.22	1.54
12. Freedom in choosing course work	4.73	1.14	4.22	1.63
13. Work and study interaction with fellow students	4.28	1.12	4.18	1.22
14. Overall physical facilities	3.82	1.36	3.86	1.16
15. Opportunity for independant thought and action in educational programs	4.48	1.16	4.31	.94

TABLE 1 (cont'd)

HEOI Reasons Description	Non-Transfer (N = 97) M	Non-Transfer (N = 97) SD	Transfer (N = 22) M	Transfer (N = 22) SD
16. Academic performance of fellow students	3.69	1.22	3.68	1.32
17. My friends will go to the institution	3.01	1.44	2.77	1.34
18. Degree of emphasis on grades	4.42	1.27	4.40	1.00
19. Amount of required work in courses	4.34	1.33	4.50	1.05
20. Training in your career interest	5.30	1.14	5.63	.58
21. Institution close to home	4.26	1.61	4.54	1.50
22. Social interaction with your professors	3.53	1.34	3.27	1.12
23. Parents wanted me to attend	3.42	1.84	3.45	1.87
24. Could not find a job	1.90	1.45	2.27	1.45
25. To earn more money	3.69	1.92	3.77	1.95
26. To prepare myself for graduate or professional school	4.30	1.64	4.27	1.75
27. To get away from home	1.97	1.29	1.90	1.34
28. To meet new friends	3.44	1.47	3.09	1.77
29. Financial assistance offered	4.12	1.79	3.50	1.92
30. Special programs for Hispanics	3.38	1.78	3.09	1.79
31. Teacher/counselor recommended it	3.20	1.84	2.59	1.53
32. Other students of my culture in the institution	2.88	1.67	2.54	1.43
33. Faculty of my culture in the institution	2.84	1.72	2.50	1.37

DISCUSSION

The demographic and statistical information obtained from this study permits a better understanding about Hispanic students in higher education. That is, this information explains the characteristics and the motives that influence Hispanic students' decisions to attend higher education. Duran (1986) stated that our capacity to understand what are the limiting factors of American Hispanics' access to institutions of higher education, in the present and future, will require to be based on knowledge of the characteristics of Hispanics and the diversity of these characteristics.

The major implication of this study can be expressed simply: both postsecondary institutions and state agencies need to develop new mechanisms to promote Hispanic participation and success throughout the educational experience. The results of this study provide more important information to college and university administrators, recruitment officers, counselors, psychologists, and professors about the characteristics of Hispanic students and some of the reasons that influence their decisions to enroll in higher education. Duran (1986) also stresses the need to elaborate a computerized manual, to review the background of Hispanic candidates and to identify those individuals whose academic credentials have been underestimated.

This information could be used to develop programs to attract Hispanics to institutions of higher education. These programs could emphasize those aspects of academia which are significant to these students: quality of course instruction, overall training, training in career interest, professional competence of professors, and intellectual stimulation provided by the training. Thus, student personnel professionals in minority offices could be better able to facilitate the recruitment of Hispanic students. Professional personnel working with transfer students could be better equipped to provide the guidance the students need. In addition, other kinds of initiatives can be designed to restructure admissions to and attendance patterns at institutions of higher education. Initiatives designed to improve the quality of curricula and instruction, and to advise culturally-diverse students should be devised. Counseling regarding courses eligible for transferees and academic support at four-year institutions should be provided. If no efforts are made to attract Hispanics to higher education and to facilitate their transfer from two-year community colleges to four-year institutions, the socio-economic and political future of this increasing minority will be uncertain. This phenomenon will affect not only the future of the Hispanics, but also of the general population in the United States. The overall quality of the country is going to depend on how well educated we all are.

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BILINGUAL TEACHERS' IDEOLOGIES IN THE INTEGRATION OF HISPANIC AND SOUTHEAST ASIAN IMMIGRANT STUDENTS: AN INITIATIVE BETWEEN PRACTITIONERS AND RESEARCHERS

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Abstract

This paper analyzes the prevailing ideologies or systems of ideas, beliefs, and values of three bilingual teachers in integrating immigrant students into school and cultural mainstreams through their practice. University researchers and bilingual teachers at the high school level collaborated in a multi-level qualitative study to define teaching strategies used with different immigrant students and the ideologies teachers held with regard to bilingual-multicultural education. These strategies and ideologies were further analyzed in relation to the interactional, instructional, and institutional contexts of the schools. Emphasis was placed on how bilingual teachers mediate, resist, or speed up the assimilation process between mainstream (Anglo) and the minority (Hispanic and Southeast Asian) cultures.

During the one and a half year of study, data were gathered through interviews, questionnaires, videotape analysis and critical group discussions. Data analysis was conducted through triangulation of all data sources. Reliability and validity considerations were made through individual and team (researchers and teachers) analysis of data. Cross-comparison methods of analysis were used to develop recurring themes, categories for coding, and subsequent propositional statements.

Findings from the data indicate that bilingual teachers' ideologies and strategies are complex responses defined by their experiences, grade level performance, self-images, reaction to student's gender, conceptions of ethnicity and identity, and the purpose of schooling. Students appear to be integrated into school life through either prescribed norms which lead to assimilation by reproducing institutional systems, or through adaptive norms which lead to acculturation by integrating parts of the dominant Anglo culture with Hispanic and Southeast Asian cultures. The study concludes that analyzing bilingual teachers' dominant ideologies and teaching strategies is essential in understanding the contributions of practitioners in urban schools to future teacher training.

INTRODUCTION

What occurs in bilingual classrooms goes undetected amidst the prevailing controversy surrounding bilingual education. The emphasis on demonstrating exemplary practices of bilingual classrooms, bilingual students' attainment of high achievement scores, and the "exiting" of bilingual students to regular mainstream classes, tends to overshadow the experiences shared by immigrant students and bilingual teachers as they attempt to integrate their own cultures with that of the school.

Gaining access to these within-classroom and within-school experiences requires a different set of questions and approaches than those furnished by statistical analysis and the testing of a hypothesis. Instead, what is needed are qualitative or interpretive research methods. Guided by a series of research questions, data were gathered through participant observation and interviews in a given setting over time. The data, which have systematically been derived from social research, are continuously analyzed for key relationships. Working hypotheses are developed to test out the frequency, interrelationship and influence of such relationships. Through triangulation, the comparison of several data sources, data are continuously reviewed and reduced. Themes, categories, and propositional statements emerge from the data sets as theory which has been "grounded" (Glaser and Stauss, 1967). Such theory is used to describe and explain the phenomena under study.

In this study, a multi-level qualitative approach was used during 1985-1986 to describe and document the processes involved in teachers' integration of immigrant students, within classroom and school contexts. Three university researchers of Hispanic backgrounds, collaborated with a team of six bilingual teachers in an urban school district who taught first-year Hispanic (Puerto Rican, Central and South American) and Southeast Asian (Cambodian and Vietnamese) immigrant and non-immigrant students at the elementary, junior high and high school levels.

Such collaboration resulted in a research initiative between practitioners and researchers entitled the Bilingual Education Research Collaborative. This article identifies only the ideologies of three bilingual teachers at the high school level. They are presented as case studies which describe what teachers say and do in their classrooms, (bilingual teachers' knowledge transfer) as well as what they think about their practice (conceptions of bilingual education) and how they respond to the demands of their work (responses to workplace).

Theoretical Underpinnings

The ways teachers select knowledge, interpret and use such knowledge and correct meanings in their classrooms mirror the teachers' understanding of the perspective or definition they bring to a situation, the constraints which they face, and the way such perspectives are finally played out. Such perspectives or "ideologies" are, as Rachel Sharp describes: "...systems of representations which signify a set of relationships which are real but which hide another set of relations between people which are no less real" (Sharp, 1980: 92). Put another way, ideologies are treated as "...inevitable creations that are essential and function as shared conventions of meaning for making a complex social reality understandable" (Apple, 1979:20). To be understood, says Michael Apple, ideologies need to be interpreted in terms of the scope of the phenomena which is believed to be ideological and in terms of how they function--what they do to for those who have them. Moreover, ideologies always deal with issues of legitimation, power conflict and style of argument (Apple, 1979).

Teacher ideologies are formed from abstract to more concrete thought levels by the decision-making opportunities that are available to teachers. Thus, the material culture of the classroom (the object/artifacts found therein), the language used, and the lived experiences and interactions of the students and teachers provide for such opportunities.

Studies of teachers' ideologies have been informed by critical theories of reproduction (Giroux, 1983), which call for understanding schools as cultural sites linked to the larger socio-economic and political structures where power relationships are analyzed in terms of their hierarchical manifestations and socialization structures. These theories have been, for the most part, influenced by the tenets of the new sociology of education (Bourdieu and Passeron, 1977; Bowles and Gintis, 1977; Willis, 1977) which provide a broader analysis of the politics of schooling. However, Henry Giroux (1983) appraises that they fail "to provide a comprehensive critical science of schooling" (p. 259). Cultural reproduction theories tend to be deterministic in their explanations of dominant structures, disavowing the power of resistance which teachers and students have as active agents of learning. The perspectives of teachers and students, contradictions of schooling, and learning experiences are not understood except in relation to passive schooling.

Subsequent theories of resistance which combine ethnographic research studies with cultural analysis have emerged in which the human experience is demonstrated through oppositional stances or "resistance"--teacher strikes, students' use of street language, cutting of classes, absenteeism, pregnancy, etc. The ways in which such resistance is played out may be an overt contradiction of the dominant society's demands at one level, but at another, may manifest itself as supportive of the dominant ideological realm. For example, while equity in access to schooling may be viewed as favorable by many, tracking within schools may contradict the achievement of such a goal. Nevertheless, tracking is sustained in schools because it is seen as an equitable way to differentiate curriculum for different learners.

Although theories of reproduction and resistance have been used fo analyzing schooling, the "hidden curriculum", and teaching, they had not been widely used to explain bilingual educational practice until very recently. In the past ten years, the work of Pedro Pedraza, Adrian Bennett and Alma Flor Ada and publications from the Bilingual Education Office at California State University, to name a few, reflect the emergence of theories of critical pedagogy in explaining cultural, linguistic, and social aspects of bilingual education.

Applying theories of reproduction and resistance to bilingual educational practice helps identify 1) the relation bilingual education has to regular education, 2) the extent to which social roles and norms are differentiated in schools, 3) the ideologies of teachers as manifested through their teaching, 4) the correspondence between macro and micro levels of learning, 5) the instructional processes that support the institutional context, 6) the ways that students respond to lived out contradictions within their classes and 7) the cultural and social meanings embedded in teachers' ideologies. With this in mind, this study draws upon the complexities of teachers' ideologies within an urban school district in the Northeast.

The Setting

This urban school district is situated in one of the poorest communities in a Northeastern state with an estimated one fourth of its 27,000+ population living on welfare. While the community at large is highly heterogeneous --Whites, Hispanics, Southeast Asians, Polish Jews, Blacks, and Franco- Americans -- it is polarized by age groupings. Hispanics and Southeast Asians are predominantly "young" compared to an "aging" white population. Ninety percent of the inhabitants in the community are under 60 years of age, sixty- six percent are younger than 21. Approximately 30-40% of the Hispanic community speak limited or no English with greater percentages for Southeast Asians.

The young immigrant populations have supplanted the "older" and more stable ethnic groups of the community. Among Hispanics, Puerto Ricans, Colombians, Cubans, and Costa Ricans are being replaced by the "newer" Central American immigrants from El Salvador, Guatemala, Honduras and Nicaragua. Southeast Asians who came in sizable numbers during the 1980's have become a visible presence in the community through their small front stores and food shops. In addition, young upwardly mobile professionals are buying homes in what were characteristically "ethnic neighborhoods".

In this changing ethnically-mixed community, the Bilingual Program within three schools has become one of the major entry points to American schooling. The 20 year-old Bilingual Education Program is a transitional three year program for over 600 students. English as a second language is offered at the elementary level through pull-out programs while native language teaching is offered from K to 12. At the secondary level ESL constitutes the basis of moving into all other English programs. Basic classes in social studies, science, math and integrated elementary use the native languages of the students: Spanish, Khmer, and Vietnamese. Hispanics made up the majority of the bilingual student population (45%), while Cambodians rank second in numbers and Vietnamese third, both totalling about (30%). The remaining 25% are represented by individual students from diverse countries.

METHODOLOGY

The study of teacher's ideologies was one part of the major research project in which a two-pronged qualitative approach was used to identify and describe the processes for integrating immigrant students. First, an outsiders' perspective was obtained from participant observations. Questionnaires, interviews, audio and video recordings complemented this perspective. The researchers' questions attempted to identify:

a) What strategies, and ideologies are used by bilingual teachers in their practice, and how are these constrained by the institutional, instructional and interactional contexts of the school? ; and

b) How do bilingual teachers mediate, resist, or speed up the assimilation process between the mainstream (Anglo) and minority (Hispanic and South East Asian) cultures?

Second, an insider's perspective emerged from the teachers' discussions and reflections during the monthly meetings which were conducted between teachers and researchers at the local library after school. Teachers were asked to share their knowledge and concerns with each other and to analyze and assess their teaching methods and practice by viewing videotapes of their classrooms in these meetings. In this manner, bilingual teachers shared their experiences with each other and with the researchers.

Negotiating Entry

Entry into the school district for the university research team was facilitated by the Director of the Bilingual Program who knew the principal investigator from previous research in the community.

Three criteria were established to select teachers with whom collaboration could take place. Through documentation gathered from the Bilingual Program office: 1) teachers with the highest concentration of recent (from six months to a year) immigrant students in basic classes were identified, 2) university researchers made sure that at the elementary, junior high, and high school levels, teachers would correspond to the highest concentration figures of immigrants and languages used to assure ethnic representation and, 3) finally, the researchers counted on the teachers and students' willingness to participate as one of the more critical criterion. Confirmation of student and teacher cooperation was made through human subject letters written in each of the languages of the school--Spanish, Khmer, and Vietnamese.

Six teachers of Anglo, Hispanic, Cambodian and Vietnamese backgrounds teaching math, science, social studies, language arts, and ESL collaborated in the major study.

Table I

Subject	Ethnic Background	Grade Level
ESL	*Anglo (female)	9-10th graders
Social Studies	*Cambodian (female)	9-11th graders
Science	*Cambodian (male)	9-11th graders
Math/Science	Vietnamese (male)	7-8th graders
Integrated	Anglo (female)	lst graders
Kindergarten	Puerto Rican (female)	

*Teachers discussed in this paper

Of these six teachers, three high school bilingual teachers became the focus of this article. The reasons for their selection were as follows: 1)The experiences and ideologies of these three teachers represented different ethnic orientations and ways in which they coped with first year immigrant and non-immigrant students in their classrooms. 2) Being high school teachers offered unique opportunities for analyzing their ideologies in a context where students are initiated into the rituals of adulthood and future education. On the one hand, bilingual teachers' ideological underpinnings as well as the contradictions of teachers' decisions could be analyzed with regard to subject-specific issues and practices. In such a context, the challenges faced by teachers who respond consciously or unconsciously to student demands with their own standards and criteria, could be documented. On the other hand, student's school-life-experiences, including their responses, reactions, and demands to teachers could also become concretely identified. 3) The analysis of how acculturation / assimilation proceeds during the student's initial year of entry into American life and schooling, presented a challenge. 4) Finally, because research in bilingual high school contexts of a qualitative nature is relatively new, these three teachers' willingness to participate in a venture from which new knowledge could be generated became an important incentive.

Data Collection and Data Reduction

The corpus of data was gathered through participant observation, field notes and memos, school documentation, interviews of teachers and students, as well as video tape analysis during the one and a half year of research. However, it was the critical group discussions in the teachers' meetings which yielded some of the themes which were used to generate several working hypotheses. It was hypothesized that to the degree to which instructional materials in the subject matter and language of the students were available, teachers would tend to use these innovatively in their classrooms. Teachers without such materials would tend to teach in traditional ways-- lecture, dictation, etc.. It was also hypothesized that teachers' practice would be constrained by the degree of resources and time made available to them by the institutional framework. Teachers with greater number of resources and time would be more productive in configuring their students' learning. Finally it was hypothesized that to the extent to which teachers' ideologies became influenced by their understanding of bilingual education, to that end their teaching would reflect decision-making about mainstreaming practices.

Data analysis was conducted through triangulation of all data sources. Reliability and validity considerations were made through individual and team (researchers and teachers) analysis of data. That is, two researchers observed the same classroom, or observed classrooms previously observed by one of the researchers, or in some cases, viewed the videotapes independently and then in a team (including teachers) to assess how data could be reduced and used as adequate categories of description and interpretation. Cross-comparison methods of analysis were used to develop recurring themes and coding categories. These themes and categories were developed into matrices which were further analyzed for consistency across time. Subsequent propositional statements were made explaining each teacher's processes.

Limitations of the Study

Although the study yielded a large corpus of data, there were nevertheless limitations which had to be surmounted. Finding Khmer or Vietnamese speaking researchers was by far one of the greatest limitations of the study. In order to capture much of the in-class interactions of Vietnamese and Cambodian students and teachers, interviews with Vietnamese and Cambodian teachers after their classes were heavily relied on. For lack of an interpreter, one of the Cambodian teachers who herself was learning English, often interpreted for the researchers since her command of English was better than that of her companion. Turnover of staff also affected the continuity of the research process from the outset.

However, substitute teachers made the completion of the study possible. To gain a sense of each of these teachers' ideologies, case studies depicting background information on each of the teachers and their students is presented.

Case Studies

Mr. A is a quiet, soft-spoken Cambodian man in his mid-30's. He was hired to teach Cambodian students through an announcement that his cousin brought to him. Prior to being in the high school, Mr. A. worked in a U. S. factory cutting materials. In Cambodia, he had been a shrimp farmer.

Mr. A's reminiscences of schools in Cambodia both in his home town and in the camps provided him with the only background he had for teaching. He had not completed secondary school at home, but had been exposed before his arrival to America, to Cambodian classrooms with long benches where girls and boys sat at different benches and where the teacher stood at the front directing students, and to the teaching in the refugee camps. His need for Cambodian materials was often expressed with questions to the researcher: Where can I find materials for my students, what books are there, do you know any?"

In interviews with Mr. A, expressions of the time spent in preparing a lesson were often discovered. Mr. A. would spend anywhere between 3 p.m. to 11 p.m.or sometimes 2 a.m. each night translating sections of the English text in science with a Kymer dictionary in hand. As he walked into the laboratory's three tiered room where he taught in the morning, Mr. A had newly written lists of new vocabulary words and ditto sheets each day. His day was roughly divided into teaching three sections of science in the morning; two small sections of ESL to assist the ESL teacher next door during noon; and preparing materials during one period of the afternoon. Mr. A was frequently helped by Mrs. B, who was also from Cambodia. When the two were in the same classroom, and students were writing, they would help each other out with lesson plans.

Mr. A taught the only science component available to Cambodian students in a combined class of 9-11. He had 15 students, 8 boys and 7 girls, who sat on opposite sides of the room. Essentially he lectured with the book in front on him. He raised his head once in while, and moved back and forth from where he stood to the blackboard where he would jot down a word or phrase in English with its equivalent in Khmer.

His students ranged in age from 14-18, with two or three being identified by him as "illiterate in Khmer." These students were all new arrivals, except for two students who began their schooling in America at the junior high school. Both sexes wore Western clothing, but the girls covered their long hair with colorful pins and ribbons. The boys wore designer jeans, washed out jean jackets, and Reebok or Nike sneakers, open at the top with half a shoe lace tied around.

As classes began, except for the occasional question addressed to the teacher, silence predominated. The girls infrequently asked questions, but when they did, they turned to a boy who directed the question to the teacher. Mr. A tended to answer the whole group. Boys appeared to have more of an on going dialogue with Mr. A.

Mr. A directed 95% of the talk at all times. He used expressive gestures and body language (the vein in the arm) to get his point across. Yet his eyes rarely left the textbook, which he read and translated to Khmer, while students followed the English version in their open text. Whenever he raised his eyes, it was to direct a question or emphasize a point. Examples from the ditto sheets which he has translated have the basic terms from the text. These he wrote on the board in English and Khmer. Mr. A. frequently moved between the blackboard and the back of the lab table as he presented new information. Ten minutes before the end of each class, the homework assignment was written on the black board in English. Students were asked to bring in their written work using English for the next day.

When Mr. A taught Ms. C's ESL class section, even though he had a more traditional classroom and could move around freely, he maintained space between himself and the blackboard by situating himself at the front near the teacher's desk. Mr. A would follow the lesson plan laid out by Ms. C with care, however, there were times when he himself did not understand the grammatical concepts he was to teach and found himself reading from the text to the students. When he spoke English, he would speak with the same inflection used in Khmer so that some words would tend to rise near the end of the sentence. His students, most of whom did not know how English sounded, would imitate his inflection.

Mrs. B is a mild mannered and energetic woman. At the time of the research, she was pregnant. She had lived six years in the United States, spending one year at a bakery and three in teaching. Prior to her coming to this high school, where she has been for two years, she taught at another school. She spoke Khmer, some Chinese and English, which she acquired at the refugee camps where she herself taught. She had taught her siblings (two brothers and one sister) and her aunt English. Mrs. B was studying ESL at one of the nearby colleges.

Mrs. B was responsible for teaching social studies (geography) and life science. Like Mr. A., she also helped Ms. C with one of the ESL sections. Frequently, she would be working alongside of Mr. A, especially at lunch. She often shared ideas about how to make up the ditto sheets and knew how to go about getting them done. Each day, Mr. A. and Mrs. B would condense anywhere between five to seven pages of textbook material into a one or two page list. Because they shared some of the same students, Mrs. B and Mr. A basically used the same classroom to conduct their classes. Mrs. B. had only 13 of Mr. A's 15 students.

Like Mr. A she taught by lecturing. Unlike Mr. A, Mrs. B stood in front of the lab desk in closer proximity to the students. She moved about frequently, pacing in front and back of the lab desk as she went to the blackboard. A greater degree of noise was heard in her class, where girls do ask questions directly. Joking is also more evident. She laughed about the sound of certain words and the students responded in kind. She would ask the class to collectively respond to her questions.

Much as Mr. A, Mrs. B uses an English text which is readily reduced into ditto sheets for each lesson. Next to her ditto sheets was a dictionary which she often turned to while talking. On the basis of the list of words, Mrs. B proceeds to ask students about the words and points to the notations in Khmer on the blackboard. She asks for homework which is brought to her desk and checked off. Homework assignments are put on the board before the end of each class by her.

Ms. C is an articulate Anglo woman who is of German background and refers to herself as a "WASP." She has been teaching in this school district for over 9 years (2 in bilingual, 7 in ESL), with the exception of one year when she went to Korea to teach ESL. Unlike the experiences of her Cambodian colleagues both in their home country and in coming to America, Ms. C went through the same school building from kindergarten to high school. She attended college in a large university, spent time in Madrid, Spain; joined the peace corps and went to Ecuador for two years. She received a Master's degree in ESL and is currently enrolled in a Law School program at night. She resides in the community where she teaches.

She holds a strong value for education as evident from her comments and continual work at bettering her classes. Throughout the observations and interviews, she was presenting new materials which she had researched or learned about. Her beginning level is one of the largest in ESL (45 students) and her class was made up of Cambodian, Vietnamese and Hispanic learners, ranging in age from 13-19 years old. Several of the students (3 Hispanic, two boys and one girl) were repeaters. Early on during the fall, Ms. C. split her class into two sections because her medium-size classroom was not able to hold everyone. She used the classroom next to her for the second group. Because this class met during the lunch hour, she took the core of students and gave the second group, "the slower learners," to Mrs. A for the lst lunch. She gave the students needing "remedial help" to Mr. B for the second lunch. As her assistant teachers, Mr. A and Mrs. B received written lesson plans designed by Ms. C. The teacher went back to work these students for another 45 minutes with the same group until the period ended. At the end of each class, she checked with Mr. A and Mrs. B about how the class went.

Ms. C's daily classes tended to be fast-paced, involving at least four to five activities--writing, speaking, listening, simulating a role, or taking a short quiz within a 45 minute period. She tested students every Friday and re-tested on Tuesdays. Quizzes were given at least twice a week. She used an array of materials, emphasizing materials with American cultural content, i.e. teaching about Valentine's Day, skiing, fast foods, etc. Hers was a no-nonsense class. Her mobility alone from her desk, to the blackboard, to walking next to students, to moving into the U-shaped seating arrangement she had created for "survival," all spoke about the enormous energy she expended in her teaching. She kept students after school for being noisy and out of line in class and helped them with work during that time. At times, keeping up with her proved difficult for her students as evidenced by their having to re-take some of the tests. Yet her classes ran on schedule and kept a brisk pace.

THE ANALYSIS OF IDEOLOGICAL FRAMEWORKS

Conceptions About Bilingual Teaching

These three teachers' ideologies and thought production appear to be conditioned by how they see themselves as teachers, and how they see their students; what their expectations are; and the trade-offs that are present in their jobs and aspirations.

For each of these teachers bilingual education means different things. There appears to be no single uniform operating model of bilingual education. For Mr. A and Mrs. B, bilingual education is getting students to learn English quickly.

In fact, from the actual limited use of Khmer as an oral code with fragmented samples of words, English seemed to be used at least 60% to 70% of the time in class. Much of this was due to having first to read in English, then translate to Khmer, use English again to identify Khmer words and then use English to request homework assignment. As Mrs. B commented on the use of Khmer: "English is what our students will need in college, not Khmer." Both Mr. A and Mrs. B like their students were also learners of English and while they could find solace in helping each other understand new concepts, their students relied entirely on them and other students.

Mr. A and Mrs. B did not know that there was a state bilingual law nor have they ever seen a written copy of the law. Their conception was that they needed to use English in incremental doses using Khmer for speaking and decoding of texts. Their source for learning about teaching came from 1) other bilingual teachers from whom they would pick up cues and 2) from their own country's conceptions of a teacher. Their conception of a "teacher" was not gained from being trained as a teacher at one of the local universities or colleges, but learned from on-the- job observations of other teachers. For Mr. A and Mrs. B, teachers were like parents, to be respected and, above all, listened to. In fact, Mrs. B made it known that teachers in Cambodia are viewed as more important than parents because they are also knowledge- bearers. Both Mr. A and Mrs. B talked about teachers as "scholars and prophets." Thus one of the demands for learning was order in the class which Mrs. B describes as "students keeping quiet in the class, doing their homework, participating in discussions," because she believes they learn best when they understand the ideas directly from the lesson. She comments: "They will learn more if they participate, ask question without being scared, being quiet and listening to the teacher in the class as they do their work. I explain and give them advice, if they don't listen, I send them to Mr. X".

Mr. A and Mrs. B worked within the fabric of the school rules and norms. They sent letters home to parents in Khmer requesting specific information, made sure the rules were understood, and used instructional patterns that were approved school-wide, i.e. the lecture method and ditto sheets for example.

For Ms. C, bilingual education translated into transition from high school into the work place. Her job is to make sure the language skills, thinking, and motivation were present in her students to "make it." She referred with special fondness to those times when, because of the demands she had placed on students, they later came back and thanked her for getting them through: "Anytime that you feel you've reached someone, that is good, they care what you have done, even someone who doesn't do his/her homework and comes to school one day with it being completed."

From the interviews, field notes and video analysis, it appears that there are no evident contradictions between the institutional purpose for bilingual education -- to integrate students as quickly as possible into the mainstream. The perceptions of these teachers, their interests and involvement were directed at meeting such a goal. None of these teachers questioned the fact that language concerns for students might be related to their cultural maintenance. In fact, it can be argued that bilingual educational practice in this program is meeting the need for English attainment from the outset, and that in that regard cultural maintenance becomes a home issue not a school issue.

Bilingual Teachers' Knowledge Transfer--What They Say and Do

From what Mr. A. and Mrs. B stated about the role of teachers and students, it was clear that learning is teacher-directed. The information emanates from the textbook, is translated unto ditto sheets, re-stated in blackboard exercises, written directly from the blackboard by students, and related back to the teacher through homework assignments. Thus students are graded on the basis of 40% on tests, 30% on quizzes, 10% on participation, and 20% on homework.

Throughout the teaching-learning sequence information is rarely drawn from the students on what they think about the issue under discussion or what they already know. On one occasion students read a ditto sheet which described Cambodia as a community country. The teacher talked about the takeover of the Khmer Rouge as she read from the text and students listened. Students were not asked questions directly nor were they involved in providing their own opinions.

Small group exercises or pairing of students were not used by Mr. A and Mrs. B, even on the occasions when Mr. A and Mrs. B used a different classroom. All of the information was delivered to students sitting in rows. The use of time in the classroom also indicated different approaches to teaching-learning. For Mr. A and Mrs. B, the class covered what was on their ditto sheet in sequential and chronological order. While both had learned how to develop objectives, these were so general as to imply an internal decision making process which appeared to be made on the spot. Time in class was spent on completing the prepared ditto sheets and segmented chapters of the textbooks.

Unsupported by the lack of Cambodian materials, these teachers try to make the best of the materials they have or are available to them. In fact, the English science and social studies textbook readers used by Mr. A and Mrs. B are below grade level. They are junior high school level texts which are used at the 9th and 10th grade because students are not able to handle the English in those other texts. Insistence on finding materials that can be easily incorporated has lead Mr. A and Mrs. B to draw upon other language related materials and to depend on ditto sheets.

Discipline was not ever an issue in Mr. A or Mrs. B's classes. While they both expressed their students needed to follow the norms for respect and authority which they upheld from Cambodia, they saw their students changing in America. Mrs. B stated: "In Cambodia, teachers use a stick. In America, students don't listen to the teacher, they want to be Americans."

Nevertheless, the tug between the old country and the new seemed to be ironed out in class by expecting "teachers to act like teachers and student to act like students." On any given day, one could expect teachers to direct the information and interaction, with students reacting, being quiet, writing, and on occasion looking at a fashion design magazine or a comic book, yet returning next day to the same rituals. Students were rarely absent in Mr. A and Mrs. B's classes.

Ms. C's rapid-fire approach covered many activities within a 45 minute lesson: English grammar and verb formats with exercise worksheets, blackboard explanations, quizzes to students and simulations by them, tests, and spot checking of homework assignments. Task achievement was a high priority for Ms. C. Homework was assigned daily with the expectation that students would comply. Ms. C instituted a policy to help students organize their papers and present them appropriately in their workbooks throughout the year. In contrast to her colleagues, Ms. C had many materials which she resourcefully drew upon for different emphases.

The separation of theory to practice was evident to Ms. C who felt that the courses she took in education did not prepare her for the realities of teaching. She commented: "I expected students to care more about their schoolwork, instead, I have to be a lot tougher. There are more discipline problems than anticipated." Her toughness was a way she could keep the class from acting crazy, because they insisted on being disruptive. On several occasions, students were kept after school for speaking continuously in class, and being disruptive.

Ms. C not only had a large class but was plagued by the turnover of her students. Within the first quarter, 8 students had already left her class --Hispanic students to return to El Salvador or Puerto Rico and her Cambodian students to move to the nearby town. Many of her students decided to go to work and leave school altogether. Although the school district had about a 40% drop out rate, according to her it was more about 59% school district wide.

Ms. C perceptions of their students differed from her other colleagues. The myth that Asian students were better achievers than Hispanic students was viewed by Ms. C as an unfounded generalization. In her experience, some of her Asian students had never been in school, had no motivation, and needed special education, while some of her Puerto Rican students had gone on to the Honor Society. She noted a shift in the Asian students who had been in the United States for a couple of years in which the responsibility which they held during junior high were no longer present by the time they were in high school. The most evident change she noted from junior high to high school for many of her students was their absence from classes, their distraction in class, and exhaustion from working at night. The Southeast Asian girls in contrast, were viewed as being very compliant and willing to perform their homework assiduously. Cultural differences, particularly with regard to pairing of students of different sexes among Southeast Asians, became evident in one of Ms. C's exercises.

The study suggests that while the Cambodian teachers perceive themselves in the role of teachers and scholars brought from their own country, they face a different reality in their American classrooms. They are confronted with a different time schedule, curriculum, policy orientations and sequence of learning; nevertheless, they continue to live out the role of teachers as scholars, to learn-on-the-job and support each other. They are the only teachers who actually see themselves teach because they work and learn from each other. Ms. C on the other hand, depends entirely on herself to enact teaching and produce new knowledge. While she has an array of resources and materials, she needs to be a good manager of both time and activities--getting the students from task A to task B, knowing they will meet the testing criteria. Test taking and repeating tests are common activities in her class. Quizzes, homework, and exercises-- all lead to safeguarding the passing of the test. On one of the tests in which 1/4 of the class did poorly on the test, Ms. C was disappointed. Students would repeat the lesson until they could pass the test. In many respects, while Mr. A, Mrs. B, and Ms. C have different cultural backgrounds, within the context of American schooling, they share the need to produce evidence of test-taking and English language use learning. They are in fact, accountable to the system.

Responses to Teaching Demands

Each of these three teachers finds him or herself in bilingual-multicultural education for different reasons. Mr. A and Mrs. B are responding to the state's requirement that a certain number of teachers be provided to meet the demands of immigrant, and in the case of Cambodians, refugee students. Through grants for emergency immigrant education assistance, school districts receive entitlements based on number of students who are enrolled. At least 500 immigrant students or 3 per cent of the total number of students enrolled in public or non-public schools during the school year need to be identified in order to receive funding. Thus, Mr. A and Mrs. B are recruited without holding certification into teaching these students.

Ms. C on the other hand, teaches ESL, a skills-oriented course directed specifically at acculturating immigrant students into the school. Her job is to provide students with English skills that will result in their moving into regular English classes, find jobs after school, and attain sufficient proficiency to graduate from high school. Thus her job is to refine the skills which Mr. A and Mrs. B are fostering in Khmer and to boost student's overall acquisition of English grammar, speaking abilities and, to some a great extent, mainstream culture.

The criteria used to identify these students as immigrants, according to the Congressional Record, is that they be: *children who were not born in a State and who have been attending schools in any one or more States for less than three complete academic years. These children include the children of lawful permanent resident aliens, refugees, asylees, parolees, persons of other immigrant status, and immigrant residents in the U. S. without proper documentation.* (author's emphasis)

Despite such criteria, when teachers were asked to clarify their notions of who is an immigrant, each of these teachers had different classifications for their students. The Cambodian teachers referred to themselves and to their students as refugees. A refugee they both said: "was someone who had left a war torn country, where his/her own life may be in danger for political reasons or because of communism." Mr. A and Mrs. B considered Puerto Ricans as immigrants, and not refugees and stated they did not know if Puerto Ricans in the school were communists. They saw themselves as having very different experiences than the Puerto Rican teachers and students. Mr. A often expressed the fact that there was no home to go back to. He would state: "I don't understand how Puerto Ricans go back and forth. This is our home now, we live and work here now."

For Ms. C, refugees were constituted by those fleeing communism so that the Central American students along with the Vietnamese and the Cambodian fell into that category. However, immigrants for her referred to people who immigrated to take up residence in this country and had some financial means to do so. In interviewing Ms. C it became evident that Southeast Asian students were the "new" minority in this school district due to their lack of resources in comparison to the other refugee groups.

The discussion on identifying immigrants however, was not as significant to these teachers as what they were to do with them in their classrooms. For the Cambodian teachers, having to deal with illiterate students in Khmer presented a problem which kept other students from advancing in class. They did not have the time to teach Khmer language and writing to those most in need as they felt students needed to learn English as soon as possible. For Ms. C. one of the frustrating experiences in teaching was the constant flux of students either coming or leaving her class: "One day, you've started with a group of students you think you'll be able to move ahead, and the next day, they're gone." Unlike the Southeast Asians who arrived to stay, Hispanics, in particular Puerto Ricans, were harder to pin down because of their mobility back and forth from the island to the mainland. Ms. C. constantly heard her Hispanic students talk about being in the United States only temporarily, thus not knowing what to expect from these students, because they might be gone, presented constant challenges to Ms. C.

CONCLUSION

In summarizing what might constitute bilingual teachers' ideologies derived from this study, several considerations need to be taken into account. These teachers are in a tenuous position of upholding the values of the institution and dominant society while at the same time enhancing the minority or immigrant students' individuality. They work out of individualized notions of bilingual education, they also have differential production and distribution of knowledge in their classrooms dependent on the information and tools which they have at their disposal. Since for the Cambodian teachers materials in Khmer are non-existent, they have opted to translate the English textbook into Khmer fragments while demanding written and oral English expressions. For the Anglo teacher, materials are plentiful, resources are present, but using time adequately, being effective, and completing tasks which result in students' learning are major concerns given the diverse nature of her classroom. The institutional demand for integration of these students attaches different premiums on teachers whose skills and experience come from refugee-camp teaching versus ESL teaching with developed strategies. The Cambodian teachers are like their own students in the process of learning about English and schooling as it exists in America. They are acquiring the skills to make demands on the system, yet it is one thing to regard American schooling as it is conceived in one's mind, and another to experience it as it occurs within certain time, scheduling, policy orientation and content constraints.

The study suggests that these teachers' ideologies are to a large extent defined by their personal and institutional demands. For the Cambodian teachers, realizing that they will not return to their homeland creates a rupture in their past which allows them to prepare for the present. They are able to undergo the process of Americanization and absorb new skills quickly without necessarily questioning the system nor making demands on it. For them, developing and using the ditto sheets, expecting students to complete their homework, translating English into their native language, using writing as the major means for doing homework, are all readily adaptable strategies given their own sense of authority, respect and compliance. Given the powerful images of teachers that parents and scholars from Cambodia have projected, it is not surprising that many of their students do well since some of their own cultural patterns towards authority figures, with respect for schools, synchronize with the demands for schooling in America. In fact, these Cambodian teachers uphold some of the traditions by molding them into their classrooms. As negotiators of the traditional and the new, who are also learning English as their students are, these teachers are influential role models.

For the Anglo teacher, she must not only introduce English and the skills surrounding its usage, but must also unquestioningly interpret the mainstream's demands for fruitful producers and consumers of the society's goods. Unlike the Cambodian teachers who may role model Cambodian cultural behaviors and newly learned American norms for their students, the ESL teacher must respond to the variety of cultural backgrounds of her students by using and creating a standardized vehicle--the English language and culture. Her job is clearly delineated: to teach students to read, write, and speak English; to socialize students into the work ethics which will correspond to manpower demands, and to keep students in schools until they are able to graduate.

These teachers arbitrate and negotiate meanings for their students in two ways. Through prescribed norms that have been internalized, irrespective of ethnic representation, and that lead to assimilation by reproducing the institutional system with all of its perceived rewards through task-oriented behaviors and instruction. Such internalization creates what this study has labeled as "assimilation by default," or the tendency, regardless of the teacher's or students' orientation toward bilingual education, to lapse into patterns of assimilation simply because there are few options available to them. Learning is simply based on following the rules when these are understood, or by learning from trial and error situations where out of default you begin to learn and acquire over time. For example, some students from El Salvador may not know why they are being suspended from school. In some cases, they have not learned the rules of the school, either because they are not translated into Spanish or they have not troubled themselves with finding out what they are. In other case, only the bilingual teacher tells them what they are. In some of these cases, after a series of suspensions, these students acquire and come to school trying to meet the criteria of the rules even though they still do not understand their rationale. After several of these incidents, students learn. For some teachers, fitting students into the school's mold becomes their mission. For others, especially those teachers who are physically rooted in America and will not return to their homeland, they assimilate their students because there are no choices, and they are compelled by a lack of adequate materials, a lack of teacher training, and a lack of awareness of their own power as teachers.

The other way teachers negotiate meanings is through the use of adaptive norms in which parts of the dominant culture are gradually integrated in bits and pieces into the underrepresented culture. In this approach, teachers and students both accept and resist the dominant culture but either consciously or unconsciously begin to adopt behaviors and norms from the dominant culture to the degree that they are useful. Some of these changes, for example, are surface changes--in the clothing and dress--designer jeans, special tennis shoes, jackets, etc. Some changes are more profound--for some teachers it has meant changing their Cambodian native name to an American name, moving out of the community itself to the suburb and becoming upwardly mobile. For some of the students, Cambodian boys, it has meant adopting peer membership rather than family membership as a major influence in their social relationships. For some of the Hispanic students, it has also meant adopting practices that would not be tolerated at home--wearing earrings or clothing which is individualized.

The study suggests that bilingual teachers' ideologies, embedded with social and cultural meanings, become constrained by the institutional structures and demands of schooling. The school is a totally different context than that of the home. For some of these teachers, their home and cultural behaviors are encapsulated by the institutional framework in which they work. To the degree that these ideologies and subsequent teaching strategies become defined by appropriate grade-level materials, in-service or on-the-job training, teacher mobility, school goals, etc., teachers' ideologies will either have a positive or negative impact on the decision- making processes for integrating immigrant students. If the purpose of schooling is toward dominant cultural norms without much room for the norms of the students to become part of their schooling, then bilingual teachers have the additional task of being negotiators of cultural domains within such classes. Much can be learned from how such ideologies are formed, sustained, and enhanced and how teachers respond to the demands made by bilingual students. Furthermore, understanding bilingual teachers' ideologies sheds light on what future teacher educators need to be alerted to. This study suggests that the success of bilingual classrooms may be proven by teachers' engagement of the students in their own learning through positive attitudes and behaviors, and though inclusion of primary language and culture in the classroom.

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INTEGRATING LANGUAGE AND CONTEXT IN THE PREPARATION OF BILINGUAL TEACHERS

Robert D. Milk

Abstract

Teacher preparation courses in bilingual education often maintain a sharp division between ESL methods and content teaching in the native language. This paper describes an innovative Spanish immersion course, based on bilingual curriculum materials, which is designed to better prepare teachers for integration of language and content instruction in bilingual classrooms. Findings presented here are based on data drawn from, (a) pre-post language proficiency tests, (b) student evaluations of the course, and (c) dialogue journals that were kept by course participants. Although interpretation of these findings is highly tentative due to the small number of participants included in this preliminary study, the results clearly suggest that a majority of course participants increased their Spanish proficiency with respect to oral fluency and academic language (although not with respect to mastery of grammar or writing skills). Moreover, a clear majority of the students felt that they had greatly increased their understanding of the kinds of problems that LEP students encounter in dealing with academic content in a weaker language. All of the participants perceived that they had increased their understanding of how to integrate language and content goals as a result of their experiences in this course. The data strongly suggest that course participants not only improved their Spanish, but also gained important insights into how they might more effectively address the linguistic and academic needs of LEP children in the classroom. These results provide support, therefore, for the potential effectiveness of a university-based course which combines a study of theory with experiential insights drawn from an immersion experience in Spanish.

PURPOSE

Although the field of bilingual education has, in recent years, begun to see the emergence of research findings that have significant implications for effective instructional practices, it is not fully clear how teacher educators might best draw on this research base to strengthen current approaches to preparing bilingual teachers. The purpose of the ongoing project described in this chapter has been to explore the feasibility of approaching bilingual teacher preparation from a more experiential framework than has traditionally been conceived. Ordinarily, the search for more relevance in teacher education has led to greater involvement in field-based experiences for students. While this is highly desirable, it is not always possible within the context of university-based coursework, particularly during summer months -- an important consideration given the preference of many teachers to study during the months when school is not in session.

The project described here set out to develop an innovative "methods" course for bilingual and ESL teachers that would faithfully mirror, within the daily experience of course participants, the kinds of classroom applications related to methods that contemporary research seems to be encouraging. A secondary purpose of the project has been to collect relevant data from varied sources that would enable us to tentatively explore the validity of this approach for bilingual/English as a second language (ESL) teacher preparation. Although the small scale of the project prevents any strong claims from being made, the data that have been collected up to this point are helpful in providing a fuller sense of the participants' views on this approach to teacher training, and in assessing its potential effectiveness.

REVIEW OF THE LITERATURE

Instructional issues related to bilingual schooling have, in the past, often been debated in a vacuum due to lack of a research tradition that speaks directly to these issues. In recent years, however, the knowledge base undergirding bilingual teaching has expanded greatly, providing an increasingly solid foundation on which to make empirically-based judgments related to key questions. Research in three specific areas has particular significance for a contemporary consideration of instructional methods for bilingual classrooms: (a) effective bilingual instructional practices, (b) second language acquisition within classroom settings, and (c) ESL in bilingual education (Milk, 1989).

Each of these research areas focuses on a distinctly separate set of issues, and each follows unique approaches to inquiry that reflect different research traditions. The research on effective instructional practices for language minority children draws on a rich tradition of educational research on teaching, and employs a combination of qualitative and quantitative approaches to investigation (Tikunoff, 1983; Garcia, 1987). Among the many findings reported, one that is particularly relevant to this study is the significant role played by two languages (i.e., English and the home language) in mediating learning.

Research in the area of second language acquisition, on the other hand, draws from applied linguistics, and explores the conditions under which acquisition can take place within classrooms (Long, 1981; Johnson, 1983; Long and Porter, 1985; Wong Fillmore, 1982). One key lesson derived from these studies is the critical importance of creating classroom participant structures within which negotiation of meaning in a weaker language can take place.

The third area of research, which focuses on what constitutes relevant ESL instruction within the context of bilingual education, draws on a tradition of research in the area of second/foreign language teaching that examines which teacher behaviors and what teaching techniques might most effectively contribute to solid development of the target language (Politzer, 1970). Recent work in this area emphasizes the need for ESL instruction for limited English proficient (LEP) children to move beyond the goal of communicative competence toward a focus on "academic competence", which implies a stronger focus on vocabulary enrichment and less direct focus on grammar and pronunciation (Saville-Troike, 1984).

Taken together, developments in these three areas have led to a stronger focus on learning outcomes and on cognitive processes for LEP students, as well as on more meaningful integration of language and content goals throughout the curriculum. This latter notion -- that of integrating language and content -- has become a persistent theme in the literature on instructional practices for limited English proficient children over the past few years, particularly in discussions related to ESL teaching. A number of programs around the country have implemented different versions of content-based instruction for ESL, a practice which has found considerable support from advocates of "sheltered language teaching" as an appropriate approach to second language development in bilingual education programs (Krashen, 1985; Willets, 1986). Another approach, following a similar rationale, involves establishing a special program (referred to as CALLA: Cognitive Academic Language Learning Approach) as an intermediary bridge between conventional ESL instruction appropriate for the lowest levels of English proficiency, and the regular mainstream instruction received by students who are fully proficient in English (Chamot and O'Malley, 1986).

Despite this sharp trend toward more integrated conceptions of bilingual instruction, teacher preparation programs have adapted little to reflect these changing realities. Following conventional modes of dividing up responsibilities for teacher preparation, ESL methods courses will typically deal with established methods and techniques for teaching ESL, while bilingual methods courses will deal with procedures for teaching content areas in the native language of the student. It is often not clear within which course(s) theory and practice related to integrated language teaching should be dealt with.

There are, no doubt, institutional factors that may explain this state of affairs. Within universities that provide teacher preparation in bilingual education, it is not unusual for courses related to ESL and courses related to bilingual instruction to be housed in completely separate departments (and in some instances, different colleges as well). This separate identity within the university, which often reflects a different discipline base, and, in some cases, a different ideological perspective, does not encourage the kind of close collaboration on program development that would be needed in order for innovative teacher preparation courses to be initiated. Yet, as more and more research points to the importance of considering both language development and academic achievement for language minority students from an integrated fashion, the critical need to reconceptualize the preparation of teachers for LEP populations is evident.

METHODOLOGY

Hence, the key question remains: What is the most effective way to prepare bilingual and ESL teachers to successfully integrate language and content in the classroom? In an effort to explore one possible approach toward this end, an existing course within the master's level teacher education program at The University of Texas at San Antonio was re-designed to incorporate this goal. The course, titled "Communication in Bilingual Classrooms", had previously been offered as a means for students in the program to further develop the Spanish language skills needed to function effectively as a bilingual teacher. The new course maintained this goal, but followed a totally different approach. Whereas previously the course had followed a textbook-based format, patterned on Spanish for native speaker courses offered by foreign language departments (but with a bilingual education focus), the experimental course followed a content-based approach with the bilingual curriculum from science, math and social studies as the basis for all language learning activities.

In order to simulate in a more realistic fashion the nature of language learning in bilingual classrooms, the course instructor began to encourage, on an experimental basis, enrollment of ESL teacher candidates who were not native speakers of Spanish and who, in some cases, were quite limited in their Spanish proficiency. For these students, the course became a Spanish immersion experience, and perhaps just as important, a direct vehicle for better understanding the frustrations experienced by LEP students in attempting to deal with academic content through a weaker language.

The language goals, therefore, were slightly different for bilingual and ESL participants in the course: for bilingual specialists (most of whom were Mexican Americans and also native speakers of Spanish, albeit at quite varying levels of proficiency) the language goal was to increase fluency in "academic language" and to increase vocabulary range in the content areas of the curriculum; on the other hand, for ESL specialists (none of whom were native speakers of Spanish), the goal was a much more modest one of achieving functional proficiency in Spanish at a level that would enable them to communicate at a basic level with children and their parents.

Perhaps more important than the language goals, however, were the pedagogical goals related to integration of language and content in programs for LEP children. For the bilingual teachers it was expected that insights would be gained with respect to the kinds of ingredients that must be present in order for children's weaker language to be effectively developed during their involvement in subject matter instruction. For ESL teachers, the course was designed as an experiential model demonstrating the potential effectiveness of content-based ESL instruction.

The Course

Drawing on the research base cited above, it was determined that the most effective language acquisition environment that could be provided for the students would involve the use of highly interactive small-group learning activities. Given the highly diverse Spanish language proficiency levels of the course participants (see Tables 1 and 2 for language proficiency data), it was decided that heterogeneous grouping based on differences in Spanish proficiency (i.e., deliberate mixing of high proficiency with low proficiency students within learning groups) would maximize the learning possibilities for the students. Within this heterogeneous grouping, students with lower levels of Spanish would benefit greatly from the input provided by more proficient classmates, and students with higher proficiency levels would benefit from the need to explain concepts and ideas from the planned learning activities in Spanish to their "limited Spanish proficient" classmates.

Based on what is known about extensive use of groupwork in elementary classrooms, it is unlikely that this approach can be successfully implemented without carefully preparing participants to function in a cooperative mode (Cohen, 1986). This is particularly true within the context of a university class, where the usual mode of instruction is based on lecture and discussion. The final element, therefore, that needed to be stressed in order for the heterogeneous group contexts to function effectively, was to establish a cooperative learning approach which could serve both as a modus operandi for this course as well as a model for the type of instruction that the participants should be implementing in their own classrooms. Hence, a step by step process was introduced from the first day of class through which cooperative learning procedures (including reinforcement of cooperative behavior and assignment of clearly defined roles within the groups) were carefully developed (Kagan, 1986; Cohen, 1986).

In order to demonstrate directly the underlying principles behind the proposed instructional strategy (i.e., highly interactive heterogeneous groups, focusing on cognitively demanding tasks, and working under a cooperative learning mode), a bilingual curriculum that follows this basic approach was selected for use during the initial phase of the course: the Finding Out/Descubrimiento (FO/D) curriculum (DeAvila, Duncan, and Navarrete, 1987). During this initial phase, which lasted approximately 15 contact hours, students completed readings on the theoretical principles that undergirded the course, received mini-lectures in "sheltered Spanish" on these principles, and engaged in small-group sessions based on the FO/D curriculum. During these sessions, which were conducted under careful guidance of the instructor, participants became accustomed to operating under the fundamental rules established for all subsequent learning activities in the course, which included sole use of Spanish in the class, a focus on learning activities from the content areas, and strict adherence to cooperative learning procedures.

During the subsequent phase of the course (which lasted approximately 30 contact hours), students were required to plan and to design learning activities from the content areas that they would then facilitate in the class, with their classmates role-playing as elementary school students. The guidelines for these small group activities stressed that they were to be highly interactive, cognitively demanding, and requiring cooperation for full completion of the task. They were also to be planned and implemented totally in Spanish, with the groups composed of participants possessing varying levels of proficiency.

Finally, participants were required to keep dialogue journals in order to encourage development of Spanish writing skills. Students were required to make regular entries into their journals, and were encouraged to use the journal as an interactive device to communicate with the instructor. Specific instructions for the journal included reflecting on emotions they were feeling in connection with their language learning experience. In addition to serving as a powerful stimulus for increasing writing fluency, the journals provided a rich source of insight into the kinds of challenges that students face when required to deal with cognitively demanding tasks in their weaker language.

The Study

In order to determine whether the course was accomplishing the primary goals that were intended, a pilot study was carried out during the 1987 summer session. The course was one of three graduate-level options included in the Summer Institute for Bilingual Education, offered by the Division of Bicultural-Bilingual Studies at The University of Texas at San Antonio during the month of July. Unlike the other two courses, which were part of the 12-hour bilingual education endorsement sequence, this was not a required course for certification purposes, and it drew, therefore, teachers who were primarily interested either in strengthening their Spanish proficiency or else in learning more about methods and practices related to bilingual/ESL instruction. There were nine students enrolled in the course, with six of the students specializing in bilingual education and three in ESL. Five of the students had initially learned Spanish through formal language study in high school and/or college; the other four students had initially acquired Spanish as a result of exposure to the language within the home or community. The differing levels of proficiency in Spanish for the participants is evident in the pretest scores reported in Tables 1 and 2.

The specific questions posed by the study were:

1. Did participants increase their proficiency in Spanish?
2. Did participants increase their confidence in using Spanish for academic/learning purposes?
3. Did participants gain insight into the difficulties experienced by LEP students when having to deal with the curriculum in their weaker language?
4. Were insights gained with respect to the integration of language and content in bilingual classrooms?
5. Were insights gained with respect to the second language acquisition process, including strategies commonly used by second language learners?

The data sources for addressing these questions included, (a) pre-post data on language proficiency, (b) student evaluations of the course, and (c) entries from the dialogue journals.

RESULTS

Language Proficiency Data

The course met for three hours daily over a three week period, yielding a total of 45 contact hours. Because of the relatively short duration of the course, it was not really expected that measurable gains in Spanish language proficiency would be found. Nevertheless, four different measures of language proficiency were made on a pre-post basis in order to explore possible gains in Spanish proficiency. The first measure was a dictation taken from the text in the introduction to a teacher's manual for a bilingual reading curriculum. The second measure was a relatively simple cloze passage based on a children's story. This test contained 24 items obtained by deletion of every sixth word, and was scored following the exact word method. The third measure was a more difficult cloze passage based on a teacher's guide for a science curriculum. It contained 25 items obtained by deletion of every eighth word, and was corrected using appropriate word scoring. The fourth measure was the Spanish version of the Language Assessment Scales, Level II (LAS II).

Of the four measures, only the LAS II is a published test that has been subjected to reliability and validity studies. A recent review of this test (McGroarty, 1987) found the statistical reliability reported in the technical manual to be in the moderate to high range, with interrater reliability for the storytelling task at a respectable level (average of .80 for LAS II). The validity studies conducted for LAS II compare the student scores with teacher judgments -- in the case of LAS II, with the judgments of bilingual adults who have been asked to separate monolingual speakers of English versus Spanish. The reviewer finds these validity studies encouraging, particularly with respect to broad classifications, but affirms that many questions about validity for the five discrete proficiency levels remain unanswered. It is also worth noting that, although the LAS II may be used with older students, the subject matter content of the test is not fully appropriate for adults. Nevertheless, as one element within a set of multiple measures, the LAS II provided some information on oral proficiency that was deemed helpful for the purposes of this preliminary study.

The pretest for each of the four measures was given on the first day of class, prior to any instruction, and the posttest was given on the final day of class three weeks later. The first three measures were administered by the course instructor, but the fourth measure (LAS II) was administered by a trained research assistant who was contracted for this task.

The results for the first three measures are reported in Table 1. Gains of 12 points or higher (out of 100 possible points) were recorded by seven out of nine students on at least one of the three tests. Four of the nine students posted gains of 12 points or higher on at least two of the three pragmatic measures.

Table 2 records the gain scores on the LAS II test. Six out of the nine students achieved gains of 10 points or more on this measure. It is interesting to note that six out of the seven students who began the course with a LAS II score of level 3 or below tested out at level 4 at the conclusion of the course three weeks later. The two students who began the course at level 4 or above (students 1 and 2) posted no gains. There are two possible explanations for this: either students 1 and 2 failed to gain much proficiency because they were already at a fairly high level, or else the test was too easy for them and thus did not adequately measure the gains that they may have made in Spanish (i.e., the results for these two students may reflect a "ceiling effect"). Because these two students did achieve substantial gains on the two cloze tests (Table 1), it appears reasonable to assume that the latter explanation may be valid in their case -- i.e., the LAS II is not sensitive to gains that might be achieved by students who are already at a fairly high level of Spanish proficiency at the outset of the course.

TABLE 3
Student Perceptions of Course Effectiveness: Means from Student Self-report Data[a]

N - 9

Item: extent to which course helped....	Mean[b]	SD
1. overall fluency in Spanish	4.25[c]	.66
2. to communicate concepts from content areas in Spanish	4.44	.50
3. Spanish vocabulary	4.33	.47
4. awareness of mechanics for writing in Spanish	3.33	.68
5. understanding of Spanish grammar	2.88	.99
6. awareness of local and regional Spanish variety	3.33	.83
7. understand theory for second language acquisition in classroom settings	4.22	.67
8. understand cooperative learning	4.78	.47
9. understand how to integrate language and content	4.89	.31
10. understand dual language development in bilingual settings	4.33	.47
11. develop skills in effective second language teaching techniques	4.22	.79
12. in use of small groups for second language teaching	4.78	.42
13. create awareness of learner's problems in dealing with academic content in a weaker language	4.56	.68

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[a] Anonymous responses completed at conclusion of course

[b] 5 point Likert-type scale 5 = "a great deal"
3 = "a fair amount"
1 = "not at all"

[c] Only 8 responded to this item

Evaluation Data

At the conclusion of the course, the students were asked to complete an evaluation form which focused, in part, on the extent to which they felt the course had helped them in three specific areas: (a) improving their Spanish proficiency, (b) understanding theories related to bilingual instruction, and (c) teaching a second language. The form required respondents to select an answer on a semantic differential scale ranging from "a great deal" (scored as 5), to "a fair amount" (scored as 3), to "not at all" (scored as 1). In order to encourage frank responses, the forms were completed anonymously and collected by a student. The forms were not turned in to the instructor until after grades for the course had been turned in.

Summary results from the evaluation instrument are reported in Table 3. Under the broad category of "improving Spanish proficiency", means above 4.00 were obtained for the items relating to "overall fluency", "vocabulary", and "communicating concepts from content areas in Spanish". High means were not obtained for the items relating to "mechanics for writing" and "understanding grammar". These results coincide closely with course goals, which focused heavily on oral communication related to teaching the bilingual curriculum, with only secondary stress on writing skills and grammatical knowledge. It is interesting to note that there is greater variability on the item related to understanding grammar than on any other item (standard deviation = .99), perhaps reflecting the fact that students were given a choice on how heavily they wished to focus on the formal study of Spanish grammar through individualized textbook exercises, and thus did, indeed, vary greatly on the extent that they increased their understanding of Spanish grammar. In any event, it was clear that students, as a group, felt that the course had done much more for their overall fluency and their development of academic language and vocabulary than for their understanding of grammar or improvement of writing skills.

Under the category which relates to understanding theories for bilingual instruction, all four items had means above 4.00. Each of these items related to a specific area of the syllabus for which readings had been assigned and lectures had been presented: cooperative learning, integration of language and content instruction, second language acquisition theory, and the importance of native language development in bilingual settings. Similarly, high means were obtained for the three items related to second language instruction (items 11, 12, and 13). These items were connected to major course goals such as the use of small groups for second language teaching and creating an awareness of the kinds of problems encountered by LEP students in the classroom. The high means obtained for all the items included under these two categories, therefore, seem to suggest that the course may have led to important theoretical and practical insights related to effective bilingual and ESL instruction.

Dialogue Journals

Additional insights on effects that the immersion experience had on course participants were obtained from the dialogue journals. The data from student entries are so rich as to merit thorough analysis through a separate study, but a couple of the points raised are relevant to our fuller understanding of the data presented above, and are briefly summarized here.

First, the intensity of emotions surrounding the immersion experience was evident in all the journals. One of the lower proficiency students wrote (uncorrected version): "Cuando yo tengo un tiempo duro con mi español no me divierto tan mucho. Y yo pienso que otros les gustan mi personalidad en inglés mas que en español." This student, who was struggling a bit with her Spanish, was clearly concerned that her true personality could not be adequately revealed when she was denied access to English. This kind of insight is extremely significant for teachers of LEP students to experience first-hand.

A second point raised by the students in the journals related to the continual need to foster cooperation among group members. One student wrote (uncorrected): "Todo el mundo trabaja bien y cada persona ayuda a lo demás -- pero existe cierta propensidad de evitar un grupo por una persona o otra. Tal vez, unas personas no sienten confortable en hablar español con otra persona -- no se. Para mi, prefiero estar con los hablantes nativas..." In a later entry, this student noted that unless there was open encouragement on the part of the instructor and a conscious effort among participants, there was a tendency for communication to take place along ethnic lines. This tendency, which was noted on a number of occasions, underlines the necessity for direct intervention on the part of the instructor with a clear and deliberate strategy to maintain the heterogeneity within groups and to gently nurture full elaboration of each individual's role within the group.

A third point related to the effectiveness of dialogue journals, for affective as well as pedagogical reasons (uncorrected): "Al terminar este diario, quisiera decirle que esto es algo muy valuoso para comunicación privada. Se puede decir algo que de otra manera no se diría directamente. Uno tiene un mensaje y tiene que buscar las palabras apropiadas para decirlo bien. Me gusta esta idea para implementarlo en la clase."

Finally, the journals included a number of anecdotes related to students' perceptions that their fluency in Spanish had improved notably. One Anglo student, whose former husband was a native speaker of Spanish, wrote (uncorrected): "Anoche hablo mi ex-esposo y me dijo que ya estoy hablando con mas facilidad. El no supo que iba a una clase donde hablamos en español pero se fijó que platico más rápido y sin tener que pensar tanto -- como buscar las palabras tanto. Es cierto que en menos que dos semanas noto la diferencia yo tambien."

Summary of Results

Based on the data that have been analyzed and presented here, some tentative answers can be suggested for each of the research questions posed earlier:

Question #1: Did participants increase their proficiency in Spanish? Four of the nine students posted gains of 12 points or higher on at least two of the three pragmatic measures, and six of the nine students achieved gains of 10 points or more on the LAS II. Although the practical significance of gains of this magnitude is not fully clear, it seems reasonable to say that half of the students did demonstrate measurable increase in their Spanish language proficiency.

Question #2: Did participants increase their confidence in using Spanish for academic/learning purposes? A majority of the students (six out of nine) felt that the course had greatly improved their fluency in Spanish and their ability to communicate concepts from the content areas.

Question #3: Did participants gain insight into the difficulties experienced by LEP students when having to deal with the curriculum in their weaker language? Most of the participants (seven out of nine) reported that they had gained important insights into the kinds of problems learners encounter when they are required to deal with academic content in a weaker language.

Question #4: Were insights gained with respect to the integration of language and content in bilingual classrooms? The highest rating for all categories (mean of 4.89 on a 5 point scale) was obtained with respect to this question -- students unanimously perceived that they had greatly increased their understanding of how to integrate language and content as a result of this course.

Question #5: Were insights gained with respect to the second language acquisition process, including strategies commonly used by second language learners? Five of the participants felt that they had greatly increased their understanding of the second language acquisition process.

Implications for Teacher Preparation Courses

Teacher preparation courses in bilingual education need to begin to explore ways in which they can reflect the move toward greater integration of language and content that is emerging in quality instructional programs for language minority students. The data reported here appear to support the viability of one possible approach through which this goal might be achieved. This approach combines theoretical understanding with experiential insights drawn from role-playing in a Spanish immersion setting. The outcomes appear to include gains in Spanish proficiency in addition to the academic gains reported in the self-report data. Moreover, despite being offered largely in Spanish, the course provides appropriate and relevant lessons for both bilingual and ESL specialists. Through this approach to methods instruction for teachers of LEP children, therefore, the integration and teamwork that is sought after and sorely needed in the public schools can be closely mirrored in the university teacher preparation experience.

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A MODEL FOR IMPLEMENTING BILINGUAL EDUCATION

Roy E. Howard

Abstract

This report and recommendation is based primarily on two qualitative studies of teachers at bilingual schools in the Southwest. Both schools operate under systems whose official policies require native language instruction. Yet to date, these, as many schools, are not prepared to fully implement such policies by establishing a curriculum, acquiring materials, or funding the training of teachers. The model outlines three areas of emphasis: teacher training, program administration, and support team. Teacher training must take into account the personal experiences of the individuals becoming teachers and include experiences in cross cultural communication and in successful bilingual education programs. Administrators need to provide active leadership and involve teachers, parents and the community in materials and curriculum decisions. Parents, administrators, and teachers who are not teaching the vernacular language need to be involved in what the bilingual teachers are doing and be oriented to the objectives. Students can be motivated by a positive attitude and a unified approach on the part of parents and teachers.

Introduction

This article proposes a model for effective implementation of bilingual programs. The model includes suggested content of teacher training for bilingual education, calls for a reemphasis on the way bilingual programs are administered, and defines a teaching support team whose cooperation is essential in effectively implementing of a bilingual/bicultural curriculum.

This model is based primarily on two recent qualitative studies of teachers at schools in the Southwest. Details of the studies and the procedures used will be reported in other publications; however, sufficient descriptions are given here for the reader to understand the context used in this report. One study consisted of observing teacher attitudes and practices at an Indian boarding school which has been given the fictitious name "Rising Rock Elementary" (Howard, 1987). The other was carried out at a primarily Hispanic school dubbed "Planicias Anchas Elementary" (Howard, 1988). Both schools operate under systems whose official policies require native language instruction. Yet to date, these schools, like many others, are not prepared to fully implement such policies by establishing a curriculum, acquiring materials, or funding the training of teachers.

Many teachers seem to be waiting for the schools to require and fund bilingual education before they make a commitment to teaching native language and culture. However, some teachers are teaching native language and culture on their own initiative without regard to the lack of local funding or aggressive policy. Why do some teachers promote native language and culture literacy in an environment that is not entirely supportive?

Methodology

The approach used for these studies is in the "emic" rather than the "etic" tradition (Pike, 1966; Stake, 1978). Emic is an approach in which behavior is studied from within the system rather than from the outside. Emic studies examine only one setting rather than comparing multiple settings. In this approach, the structure is "discovered" rather than imposed by the researcher. The criteria are to be relevant to internal characteristics rather than universal and are based on constructs for reliability and validity in this type of research identified by LeCompte and Goetz (1982).

Classroom sessions of Navajo language instruction at Rising Rock Elementary were observed and interviews were conducted during the months of March, April, October, November and December, 1986, and February and March, 1987. Most of the teachers and all of the children are Navajo Indian. No formal curriculum is provided for Navajo language and culture instruction. Teachers choose whether to do it or not on their own choice. The school includes grades kindergarten through sixth with several classes of each grade.

Visits and interviews to Planicias Anchas took place each month from July through December, 1987, and several months in the following spring through May, 1988. The majority Hispanic student body receives Spanish language or Hispanic culture instruction only if assigned (by being limited in English) to one of the two bilingual designated teachers per grade level. Other teachers only do it on a choice basis. Only kindergarten through second grade are at this school.

Bilingual designated teachers and other teachers attempting native language or culture instruction were observed and interviewed on several occasions throughout the period of the studies. Other teachers and staff members were interviewed one or more times. Less than sixty people were interviewed at each school. A single researcher conducted observations and interviews in order to protect internal validity. Qualitative data were collected by note taking and tape recordings. Teacher and student behaviors were logged, as well as comments on materials used, posters and projects displayed. The emphasis in the observations was on methods for teaching native language and culture. The emphasis in the interviews was on reasons for teaching or not teaching native language and culture. Volunteer subjects were solicited from among staff members at the schools.

Ortiz and Engelbrecht (1986) studied eight classrooms from one school in a similar study. Osborne (1983) observed five classrooms in his ethnographic study at Zuni Indian school. At both Rising Rock Elementary and Planicias Anchas Elementary, the entire school professional staff is studied as a single case. Five categories of representative teachers were considered sufficient for the purposes of case study descriptions in this study: two categories of "doers", actively engaging in instruction in native language and culture (to a greater or lesser degree); those who were "hesitant" (willing and doing some, or those who were willing but doing little); and those who were openly opposed native language instruction ("against"). Several teachers from each category were self selected to be particularly thorough informants. Comments and observations of the others were used for purposes of comparison and internal reliability.

One school and one researcher were involved in each study in order to build a case for a consistent context leading to internal validity. Multiple observations and follow-up interviews and interviews of non-professional staff also increased the internal validity. The study was conducted in the same style at both schools in order to test for possible external reliability of the study format and the conclusions regarding bilingual and multicultural teacher preparation and bilingual program administration.

Even though the two studies were done with very different populations, the results seem very similar. There seem to be striking similarities in how people react to cross cultural education. A brief review of principles affecting cross cultural education may help put the phenomena observed here in perspective. Data (representative quotes from school personnel) from the studies are used to illustrate the points being made.

Culture Confrontation Dynamics

The first step in understanding what the teachers are going through as they decide whether to teach native language or culture is to put their own culture confrontation in perspective. In a 1988 address, one of the more famous contemporary American novelists, Chaim Potok (pronounced Jaim, as in Jaime) spoke of what he termed, "culture confrontation dynamics" (Potok, 1988). In the speech he used stirring examples from his writing, such as "The Promise", "The Chosen", and "Davita's Harp", to show what can happen to us as we deal with other cultures, as we do daily in schools and the community (see Attachment One).

We are born in a particular family, church, and community; we begin life within the framework of a particular value system; but soon we start being exposed to people of completely different ideas and values. Mr. Potok described four different ways that we may deal with that encounter. Each is in terms of the confrontation of cultures at their core (convictions) or through the periphery (outward manifestations).

He was raised in a very traditional Jewish closed society and family in New York. His first exposure to the world outside came when he was 16 years old and read a novel whose characters were English, Catholic, and rich. The encounter profoundly affected his life. He began to read and write and study the world for the first time. Every experience became a new window for him to understand himself and his own world. A "core to core culture confrontation" of that kind can result in an explosion of creativity and personal and societal growth.

In our age in America we are flooded with varieties of ideas beginning at an early age. Since we see so much difference around us, we often learn to confront the world superficially, without allowing it to affect our lives. If we are strong in our own convictions, these encounters are safe; we do not change our own beliefs when dealing with the outward manifestations of another culture. For example, watching episodes of "Dallas" in Paris does not threaten the fabric of French culture. Eating tacos does not make a Texan think like a Mexican. A "core to periphery culture confrontation" has little impact on our lives.

On the other hand, a person who is not well founded in his own culture can be dramatically changed by an experience with the core elements of another culture. An example of this would be the student who goes away to college and returns home in six months completely rejecting his home life. Such a "periphery to core culture confrontation" can change the course of a person's life.

The youth who rejects his parents' language and religion in favor of wild aberrations is undergoing a "periphery to periphery confrontation". Cultural greatness does not result from a confrontation of ignorance. How this problem exists in the communities studied is exemplified in these quotes.

> My son had a low score - 40th percentile, and they told him he was going into the bilingual program. They were just putting him in there because of his last name. He doesn't even speak Spanish. Most kids nowadays are not spoken to in Spanish even though the parents speak Spanish to each other.

> The young kids who start in the fall are not prepared to take tests - they do poorly on the LAS and go into bilingual - not because they don't know English, but don't know testing. Nobody reads to them at home and some don't even have conversations with adults. The older siblings are in charge in the larger families, not the parents.

One of the clearest points Potok made is that those who are strongest in their own convictions are best equipped to learn from the differences they encounter in the world. Teachers in the present studies who advocate the development of native languages and cultures seem to believe that the children should learn the highest values of their home language, literature, and tradition and that the schools should build upon the values of the home and take advantage of the differences, not try to eliminate them.

These studies describe factors of behavior that distinguish the teachers who do try to teach native language and culture (doers). They demonstrate and proclaim a belief that teaching the local language and culture is beneficial to the children cognitively and psychologically. They tend to feel that it is possible and desirable for the students to integrate into the mainstream biculturally through a "core to core" culture confrontation:

> I think probably the Navajo reading will help English reading.

> It was easier for me to learn English having learned Navajo first. Studies show that if you know two languages you learn better.

> The worst thing to do is to lose your language and clan system. Bilingual kids understand more. Most of the good Navajo speakers are good in school.

> On the reservation you have to be bilingual to get a job.

The others (hesitant or against) tend to cling in varying degrees to the standard they were raised with, that Indians (or Hispanics) should abandon their language and customs and assimilate into the dominant society. The philosophy seems to be that it would be easier to assimilate them into the dominant society by reducing their level of involvement and development in the home culture, to eliminate the core of their home culture.

> We did not have a bilingual program 10 years ago when I came. The kids started right out in English and learned it fast. Like the "Mareenas" - they translated and learned right off. They now translate for their parents. (I found out later that she referred to the Moreno family)

> Now the bilingual kids are tested in English. I don't see any sense in it, they fail of course; they know nothing because they are taught in Spanish. They really speak Tex-Mex, not Spanish. If they were taught in English, they would not have those problems. If they are going to transfer by fourth grade to English and don't know Spanish, why start in Spanish?

> If they were really taught two languages I would want my own kids in it. But look at the kids in the bilingual rooms from 5 years ago. They have not progressed at the rate of the kids in the English rooms.

> Some parents do not want their children in the bilingual program because they want them to learn English. One parent had a child in here, then transferred to the bilingual program in another town, then refused it when they returned here. She wanted a paper to keep her child out of bilingual when they returned again to the other town. She did just fine in the English class.

Some teachers (against) even hold extreme beliefs, such as "the study of the local language might interfere with the learning of the mainstream language and prevent the children from qualifying for jobs". In some cases, such beliefs may be held over from the teachers' own school experiences of coming to school not knowing the school language and being made to feel that their language was inferior.

Even though they realize that the methods they were raised with were not productive, these methods and attitudes are being perpetuated unconsciously by the teachers in the way they use the two languages. The local vernacular is used (orally) by adults to discipline the unruly, explain to the slow, and to communicate socially with other adults, not with children:

> This year I don't explain things in Navajo because they don't understand, but they understand when I discipline the class in Navajo. They really know they had better listen when I speak in Navajo, and they all understand. They acted surprised when they found out that I really do speak Navajo. I use Navajo to tell them when I am mad at the whole class.

The mainstream language English is used (orally and written) as the means and the topic of instruction and in every official and social capacity with the children. Most attempts at teaching the local language or culture are superficial and explained in the mainstream language. There seems to be a conscious effort to keep the children's knowledge of the home culture only peripheral, while keeping the exposure to the core of the mainstream culture very intense.

However, the "doers" try to encourage the development of the home culture and language as a foundation upon which they can teach the mainstream culture and language. They integrate local tales and lore into the regular language arts and sciences curriculum, expect the children to understand and speak the local vernacular fluently, and encourage them to read and write it using interesting story books and challenging assignments. They believe that development of the core of the home language and culture is the foundation upon which they can develop the school language and culture.

Discussion and Recommendations

These studies explore factors of motivation that distinguish the "doers". Certainly training in the language and culture is a prerequisite. However, there are those who are trained who still hesitate to get involved in very much teaching. Bicultural teacher training should also emphasize attitude development and knowledge and skills in bilingual methods, bicultural philosophy, and a foundational understanding of external social factors affecting the population. Positive experiences in cross cultural environments and bicultural education may be essential to the development of such attitudes. Teachers are sensitive to the expectations of others. Parents, administrators, and other teachers who are not teaching native languages need to be involved in what the other teachers are doing and oriented to what the objectives are. All the teachers need to feel a part of the bicultural curriculum. Bicultural implies two languages. There will always be a place for the English speaking teachers. Students need to be encouraged by a positive attitude from parents and teachers so they might accept the language and culture studies.

An understanding of the processes and events in a transitional population such as the bordertown Indian school or the rural plains school requires a study of the common external social factors such as history, demographics, geography, socioeconomics and politics. It also requires a feeling for personal motivation factors affecting teachers, including the teacher's perception of the expectations of others, culture, religion, sociolinguistics and psychology (including teacher training and life experiences). These factors are the framework for the individual reports of these two studies. The current discussion focuses on recommendations for implementing a successful bilingual program.

An appropriate training program for teachers of schools with bicultural policies may include: content and methods in the languages and cultures involved, training and experiences in attitude development including experiences with successful bilingual education programs and positive cross cultural life experiences, the development of a personal philosophy of bicultural education, and a knowledge of and experience with foundations of cross cultural understanding of self and others.

Effective program administration for bicultural education requires a leader who will encourage the curriculum participation and indoctrination of all concerned parties including bilingual teachers, teachers who use only English, parents, community members, administrators and students.

The studies identified needs expressed by the teachers and mentioned in the literature. These needs are placed into a new model which includes three categories: teacher training, organization and policy (including materials and curriculum), and support team (including parents). See Table I for a summary of this model.

Table I

BILINGUAL PROGRAM NEEDS

TEACHER TRAINING /	PROGRAM ADMINISTRATION /	SUPPORT
Experiences	Policies	Admin.
Foundations	Materials	Teachers
Language	Curriculum	Parents
Culture	Leadership	
		Community
Methods	Funding	
		Students

TEACHER TRAINING

Experiences. Among their recommendations for training teachers in minority education, Gonzales and Ortiz (1977) include the competencies: be able to recognize how one's personal values, attitudes, and expectations may influence one's own behavior towards minority-speaking, culturally different children; the ability to facilitate contracts and interaction between the learner's family and school personnel; and participation in a "cross-cultural" experience during the teacher training period as a condition for teacher certification. In Potok's terms, teachers need to become experts in preparing children to successfully negotiate the cross cultural confrontations of their community. These studies suggest that those teachers whose experiences include the development of a solid foundation in their own home language and culture are more likely to follow bilingual and bicultural policies of the school.

Foundations. The "Foundations" referred to in these studies are the factors for studying bilingual education described by Spolsky, Green and Read (1974, 1978) as modified by Tang (1983). Factors discussed include history, demography, geography, socioeconomics, politics, psychology, linguistics, culture and religion. These factors also create the framework and model for the discussion of the studies in their individual reports. These topics should be integrated into any teacher training program for minority education.

Language, Culture, and Methods. Teachers are likely to display culture oriented items whether or not they also teach culture and language concepts. However, displays in the language-active classrooms were more likely to enhance the attainment of policy objective. By integrating native studies into the curriculum, some teachers have been able to teach their regular subjects, stay on schedule and still teach native language and culture concepts. Teacher training should include an emphasis on methods such as these that promote the objectives of the bicultural policy.

ADMINISTRATION

The fact that legislative actions and politics at every level often counter bilingual program development suggests that a subject of local interest such as native language and culture may not find a place in the curriculum unless the individual teachers are motivated to include it on their own and in concert with their peers. Bilingual teachers need the willingness and ability to work together cooperatively in the formulation and achievement of purposes of common concern (Henderson, 1985-86). The governments and agencies that mandate such policies are currently delegating implementation and funding to the lowest operating level. At Rising Rock, this translates into the supervisor telling the teachers they can teach some Navajo language or culture if they want to. An interest on the part of more individual teachers is needed to help start the process at the school level leading to the organization of a curriculum committee. This is beginning to happen at Planicias Anchas, and it is beginning to result in greatly increased understanding and much broader support for the bilingual program. Teachers may have more confidence in the curriculum if they participate in decisions on appropriate content for culture instruction along with the parents and community members. For example, if teachers understand that the purpose for Navajo culture instruction is to foster student respect for major community activities like the Northern Navajo Fair, which everybody in the community attends, the teachers may accept the task more readily than if they feel the curriculum promotes a particular belief system, such as traditional Navajo religion.

The lack of action by the administration in the past allows the few motivated teachers to forge ahead on their own without interference. However, many of the others might do more if they had some definite leadership as seen in the recent organization of a bilingual committee at Planicias Anchas; but this is not enough. The school board and administrators must select a style of leadership that works for them and begin communication with parents and teachers if they expect the teachers to consistently implement the published policies of the school regarding language and culture.

The school policies as they are implemented, as well as administrative leadership styles may influence teacher behavior. Although different teachers respond to different styles of leadership, an active type of leadership that sets out to involve as many people as possible in the process of curriculum development and materials acquisition is likely to have the best results as these schools.

Teachers at each school complained about the lack of materials, curriculum, and funding. Only the few teachers with strong personal beliefs attempt to teach the language and culture without overt support from the administration.

SUPPORT TEAM

The teacher's perception of the attitudes of parents, administration, other teachers, students and community members towards bilingual education may be a possible factor in teacher behavior. Parents need to learn how to encourage native language use at home and the schools should promote culture studies in order for the students to successfully acquire the language. The feelings of the parents towards the use of a language affects the students' acceptance of this language in school and how the teachers feel about it.

The teachers' perception of the attitudes of other teachers do not seem to correlate with their own actions or attitudes. However, improved communication about this issue may encourage teachers teaching the native language and culture in the schools.

The teacher's perception of the student attitude is a clear predictor of teacher's commitment to this method. Teachers will not promote the acceptance of language studies. Students must be willing to participate in language studies, or the teachers will naturally be inclined to reduce their efforts. However, those few teachers who have pressed on beyond the initially hesitant student reaction have found increasingly favorable student attitudes.

Administrators need to provide active leadership and need to involve teachers, parents and the community in instructional decisions. Parents, administrators, and teachers who are not teaching the vernacular language need to be involved in what the bilingual teachers are doing and need to be oriented to the instructional objectives. Students can be motivated by a positive attitude and a unified approach demonstrated by parents and teachers.

CONCLUSION

The evidence collected in these studies suggests that teacher training must take into account the personal experiences of the individuals becoming teachers and include experiences in cross cultural communication and in successful bilingual education programs. It also suggests that teacher training is not enough to insure successful implementation of bilingual policies and programs. Teachers in a culture confrontation environment must be prepared to resolve for themselves the conflict between the tendency of parents to want linguistic and cultural assimilation for their children, and the school policy of bicultural integration. Community social pressures may be a stronger influence in teacher behavior than published policies, but personal resolve is the key to actual behavior. "Half-way resolve" may not be enough, because attempts at teaching the local language or culture that are superficial and that are explained in the mainstream language model present a low status concept of the native language. Parents, administrators, and teachers who are not teaching the vernacular language need to be involved in what the bilingual teachers are doing and need to be oriented to what the objectives are. Students can be motivated by a positive attitude demonstrated by parents and teachers. Administrators need to provide active leadership and involve teachers, parents and the community in instructional decisions.

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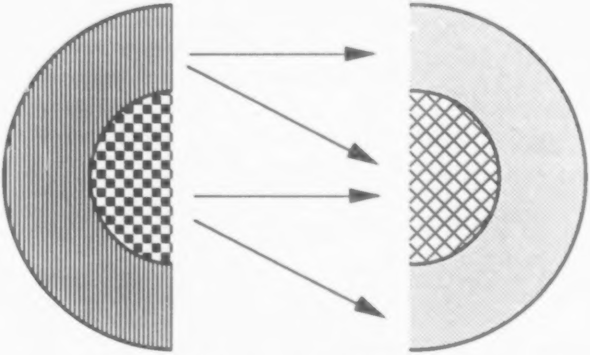
Attachment One

The following diagram is based on a speech by the famous American novelist, Chiam Potok, delivered at Texas Tech University on January 28, 1988. He contends that as people encounter different ideas and cultures, they may react in different ways according to their foundation in their own culture and the degree of exposure to the new culture. The potential for growth, maturity, or a "creative explosion", is greatest when a person who is well founded in his/her own culture confronts the deep structure of another culture.

CULTURE CONFRONTATION DYNAMICS



1. Periphery to Periphery
2. Periphery to Core
3. Core to Core
4. Core to Periphery

THE EFFECTIVE SCHOOLS MOVEMENT: IMPLICATIONS FOR TITLE VII AND BILINGUAL EDUCATION PROJECTS

Betty J. Mace-Matluck

Abstract

The effective schools movement, triggered by the "equity studies" of the 1960s, is built on a large body of literature that defines and describes effective schools for low-income, minority students. Recently, studies have been undertaken that have analyzed and described effective schools for language minority students. Regardless of population served, an effective school exhibits certain characteristics. This article traces the history and development of the effective schools movement, identifying and summarizing briefly findings of some key studies of the broader research; reviews recent studies that have investigated effective bilingual schools specifically; and suggests some implications of this movement and its research for project directors and programs that serve Limited English Proficient students.

Introduction

There are deep-seated, damaging and complex problems in our public schools. The high school class of the Year 2001 is already in our schools. If the present situation remains as it is today, more than 25 percent will not graduate. For those among the students who are classified as "disadvantaged" or "poor," the rates can triple. Disadvantaged students are three times more likely to drop out than the advantaged (West, Miller, & Diodato, 1985). Many students in the "disadvantaged" category are Limited English Proficient students, to be sure. In Texas, for example, the average attrition rate is high -- about 33 percent each year -- but for Hispanic students, that annual rate accelerates to a devastating 45 percent (Intercultural Development Research Association, 1986).

No-one is happy about these figures. The public is demanding, and rightly so, that schools effectively educate each student with the skills needed to be a contributing member of our society, as witnessed by the educational reform movement underway in various parts of the United States (Odden & Dougherty, 1984; Odden and Others, 1986). Schools across the nation, often spurred on by legislated reforms and/or coaxed by state departments of education, have accepted the challenge to make schools more effective for all students. Many are designing and implementing "Effective Schools Programs" or "School Improvement Projects" based on what is generically known as the "effective schools research."

As educators concerned deeply with the education of language minority students, we need to understand the history and context of this movement and the implications of the research on which it is based for creating effective schools for low-income students from non-English language backgrounds. Many schools that serve Limited English Proficient (LEP) students either have already begun implementing, or are planning to implement, school reform based on the effective schools literature. Educators in bilingual education and English as a Second Language programs have a critical role to play in this effort, and we need to have a clear vision of what that role is and how it can be played out. The purpose of this paper is to assist educators in understanding and defining that role. Therefore, this paper (a) traces the history and development of the effective schools movement, identifying and summarizing briefly findings of some key studies of the broader research; (b) reviews recent studies that have investigated effective bilingual schools specifically; and (c) suggests some implications of this movement and its research for project directors and programs that serve LEP students.

History and Context

The beginning of the effective schools movement can be traced to the 1966 Coleman study, which suggested that student performance is more directly related to conditions outside of the control of the school than to those under the control of the school: the child's family, and social and economic environment. Note a concluding statement from that report:

> ...schools bring little influence to bear on a child's achievement that is independent of his background and general social context; ...this very lack of an independent effect means that the inequalities imposed on children by their home, neighborhood, and poor environment are carried along to become the inequalities with which they confront adult life at the end of school. For equality of educational opportunity must imply a strong effect of schools that is independent of the child's immediate social environment, and that strong independent effect is not present in American schools. (Coleman, Campbell, Hobson, McPartland, Mood, Weinfield, & York, 1966, p. 325)

A few years later, similar findings were reported by Jencks and a group of Harvard colleagues (Jencks, Smith, Ackland, Bane, Cohen, Gintis, Heyns, & Michelson, 1972). Essentially this study concluded that the educational inequalities in the United States are not the source of inequality of income and social class. Note one of their summarizing statements:

> We cannot blame economic inequality on differences between schools, since differences between schools seem to have very little effect on any measurable attributes of those who attend them. (p. 8)

The findings from these studies enjoyed wide public acceptance at the time, but even though the dominant view that "schools don't and can't make a difference" occupied center stage in the educational discourse of that decade (1966-1976), a new act was being formed in the wings - the concept of the effective school. The first generation of effective schools studies were initiated in the mid-1970s.

While acknowledging that family background contributes to student achievement levels (test results do show that middle and upper middle class children routinely demonstrate achievement levels higher than children from poor families), some educational researchers disagreed with the notion that family background determines the child's capacity to learn. They believed that every child can master basic skills and that schools can successfully teach all children if school resources are used wisely and well.

One of the early studies that challenged the view that schools don't and can't make a difference was conducted by George Weber (1971). He identified inner-city schools serving poor student populations and examined processes operating in successful inner- city schools. To identify such schools, Weber used a nomination process. From 95 nominated schools, he selected four for case study: two in Manhattan, one in Kansas City, and one in Los Angeles. The school in Los Angeles (Ann Street School) served a student body in which 62% were Mexican American, and the remaining 38% were black. Weber found four factors present in the successful schools:

- Strong leadership (in three cases it was the principal, in the other it was the area superintendent);
- High expectations (school staff held high expectations with regard to school achievement of inner-city children);
- Orderly climate (school climate was characterized by order, sense of purpose, relatively quiet, and pleasure in learning); and
- Careful evaluation of pupil progress (students were tested on a regular schedule, and performance was used to diagnose need and plan instruction).

Thus, very early on, factors such as leadership, expectations, orderly school climate, and evaluating student progress were associated with effective schools.

Over the next several years three types of studies were carried out. One type is a cluster of studies known as the "outlier studies." In this method, a statistical procedure is used to identify schools in a sample whose average student achievement scores fall at the highest end of a given spectrum (high-achieving schools) and at the lowest end (low-achieving schools). Researchers then studied characteristics of these outliers to determine reasons for the schools' scores. Why the extremes? What worked very well? And what seemed disastrous?

A particularly relevant outlier is the New York study (1974;1976). Twelve urban schools, of which five served primarily Hispanics, were identified. All served low socio-economic level children. Five schools with the lowest and five schools with the highest reading achievement in third and sixth grades were identified. On-site visitations and structured observations were used to identify characteristics of high and low achieving schools.

Some key factors present in the high-achieving schools were:

- excellent teacher control and management of classroom and students;
- good rapport between students and teachers;
- thoroughly-prepared lessons; and
- teachers were creative and flexible in grouping students for reading instruction.

Another important difference that surfaced was that leadership (whether by the principal, assistant principal, or cadre of teachers) for the instruction of reading was more forceful and positive in high-achieving schools.

Another type of study is the case study. One of these, the California study (California State Department of Education (1980), included a sample of schools with high concentrations of bilingual students (about 60% of the total sample was made up of such schools). Some of these schools reflected increasing reading scores while others had declining scores. Similar to the findings from the California study, findings from a cluster of case studies generally supported and extended findings from other types of research. Characteristics common to some, but not all, of these studies were:

- strong leadership by principal or staff;
- high expectations for student achievement;
- clear goals and emphasis for the school;
- school-wide staff training programs; and
- monitoring of student progress.

A third type of study in the effective schools literature is the program evaluation. These studies were generally stronger studies, but nevertheless, the characteristics discovered in program evaluations were very similar to those from the other types of research.

A relevant example of the program evaluation approach is the Armor analysis of reading programs in Los Angeles (Armor, Conry- Oseguera, Cox, King, McDonnell, Pascal, Pauly, & Zellman, 1976). Of the 20 elementary schools studied, the student body of half of the schools were predominantly (80%) Mexican American; the other half of the schools served predominantly Black students. Of particular interest in this study was the positive relationship between parent involvement and student achievement.

As these key studies and others reported their findings, a definition and description of an effective school for low-income minority students began to evolve. The late Ron Edmonds (1979) in his summaries of effective schools literature delineated five correlates of effective schools:

- Instructional Leadership. Leadership from either the principal, another administrator, or a group of teachers, is necessary to create and maintain an effective school. Effective school leaders emphasize achievement, set instructional strategies, ensure an orderly atmosphere, frequently evaluate student progress, coordinate instructional programs, and support teachers.

- Focus on Instruction. High quality instruction is the successful school's number one priority. Resources and activities are directed toward instruction. There is a clear, comprehensive written curriculum which is part of every teacher's planning for instruction. Parents and community members know that the primary purpose of school is instruction.

- Orderly, Safe Climate. The environment for learning is quiet, safe, and free from distractions. Clear, reasonable rules are fairly and consistently enforced.

- High Expectations. School staff agree on their goals (i.e., academic achievement) and expectations. All students are expected to work, to learn, and to achieve. These expectations are communicated to students through teacher behaviors. In an effective school, students receive appropriate questions and prompts; they are allowed adequate time for responses. Students are shown respect, and the teachers establish clear rules of conduct and apply them consistently.

- Measuring and Monitoring Student Performance. In effective schools, student performance on a variety of standards is monitored and measured. Administrators and teachers examine not only aggregated test data, but also disaggregated analyses to make sure that all groups of students are making adequate progress. Tests data are also used to determine individual as well as group progress or problems. Information from the test data feeds directly into instructional planning, both for the campus and for the individual teacher.

Because Edmonds was trying to show that schools, in and of themselves, can and do make a difference, he intentionally omitted parent involvement as a factor. But research has consistently shown that parent involvement can and does affect student achievement; it undergrids and overlays all of the other correlates. An effective school mobilizes parents to become involved, and ensures that parents are kept informed through frequent and high-quality communication between the school and home. Parents participate in decision-making, and in a variety of jointly planned and sponsored parent involvement activities.

The above list of characteristics is only one of several that appear in the effective schools literature. One will find lists of eight or lists of ten or more characteristics. But most of the characteristics listed fall into the six categories identified above. The number of items on the list is not as important as the recognition of the importance of a variety of factors and the realization that effective schools for low-income minority students can be described. And if they can be described, they can be created.

Research on Effective Bilingual Schools

What evidence do we have that effective schools exist for economically-disadvantaged language minority students? First, as noted above, many of the early, seminal studies on which the widely-accepted Effective Schools Movement is based contained significant samples of language minority students. Findings from these studies speak directly to effective schools for language minority students.

Second, a number of studies have been completed in the last five years that have identified, analyzed, and described effective elementary schools with effective bilingual programs in which effective teaching is occurring and student achievement approximates national norms on standardized achievement tests of basic skills.

This research strongly suggests that high-quality bilingual programs within effective schools are associated with the academic success of economically-disadvantaged, language-minority students.

We can be reasonably sure that bilingual education programs acting independently of an effective school environment are not sufficient to produce and sustain positive school outcomes. Witness the on-going acrimonious public debate on bilingual education and the unresolved issue: Does bilingual education work?

Carter and Chatfield, in a very insightful article in the November 1986 issue of the American Journal of Education, estimated that only about 1% of the schools serving poor, language minority students exhibit the characteristics of an effective school.

Nonetheless, some effective schools serving large numbers of Limited English Proficient students from low SES circumstances have been identified and studied, and a portrait of an effective school for these students has begun to emerge.

In 1981, Carter and Maestes (1982) identified, described, and analyzed the processes operating in three such schools:

- one was in the East Los Angeles barrio (99% Hispanic);
- another was an ethnically-mixed school in a rural agricultural community in Southern California; and
- the other was the J. Calvin Lauderbach Community school in Chula Vista, California, just south of San Diego and near the U.S./Mexico border.

The common characteristics, attributes, and processes shared by these successful schools included the following:

1. A well-functioning total system;
2. A safe and orderly school environment;
3. Positive leadership, usually from the formal leaders;
4. Common agreement on a strong academic orientation;
5. Clearly stated academic goals, objectives, and plans;
6. Well-organized classrooms;
7. Well-functioning methods to monitor school inputs and school outputs;
8. High staff expectations for children and the instructional staff;
9. Strong demand for academic performance;
10. Denial of the cultural-deprivation argument and the stereotypes that support it; and
11. High staff morale.

Notice that these characteristics match, at least in part, the Edmond's list.

Five years later Carter and Chatfield (1986) went back and took another in depth look at the Lauderbach school and described this school in greater detail. They presented this school as an exemplar of the effective bilingual elementary school. They found that the same factors that characterized the school as an effective school in 1981 were still in place. In addition, they described factors associated with the bilingual program that they believe contribute to the effectiveness of the school:

1. The bilingual program functions as an integral part of the school. It is not a separate unit of the school, but rather it participates in, partakes of, and contributes to the positive student and educational climate outcomes.
2. Careful attention is given to the issue of reclassification of students. Reclassification of students is based on a set of criteria that meets state, district, and school guidelines -- and these criteria are strictly enforced.
3. There is coordination between bilingual and non-bilingual curricular objectives and materials. A well-designed and integrated curriculum is in place in the Spanish as well as in the English component of the program.
4. There is a feeling of ownership of the program by all, brought about by offering dual language instruction for all students (English-speaking and Spanish-speaking alike), and by collaborative teaching involving both bilingual speakers and monolingual English teachers.
5. There is careful monitoring of both student progress and student and teacher morale.
6. There is a high degree of total staff acceptance of the bilingual program.
7. There is strong involvement of the community including a highly-valued volunteer program.

This set of studies certainly point to the similarities of the effective schools literature and the emerging picture of the effective bilingual school, as do other recent studies.

For example, the findings from the Significant Bilingual Instructional Features study (Tikunoff, 1985) reinforce the importance of (a) active teaching behaviors, (b) congruence between the instructional intent and how teachers organize and deliver instruction, (c) high expectation for LEP students in terms of teaching and learning, and (d) a sense of efficacy on the part of teachers in terms of their own ability to teach all students. Also there were a number of teaching practices that stood out in the effective bilingual classroom: (a) attention to pacing of instruction, (b) giving clear directions, (c) accurately specifying and describing tasks that were assigned, (d) monitoring student progress, (e) providing appropriate feedback, and (f) use of the native language to mediate instruction.

In the Teaching Reading to Bilingual Children Study (Mace-Matluck, Hoover, & Calfee, 1984), factors associated with student gains in reading included:

- strong focus on academic work: time spent working with textual materials (as opposed to time spent with non-textual materials such as puzzles and coloring tasks);
- time allocated to reading and academic verbal interactions;

literacy skills tended to show greater improvement with increased exposure to instruction; the more opportunity for learning, the greater the skill acquired;

- use of active teaching practices; relative large amount of instruction from and interaction with the teacher;
- high achievement expectations; use of tasks of appropriate difficulty level that challenged the students but allowed consistent success; and
- effective classroom management; allocated instructional time devoted to instruction; classrooms that were relative free of major behavioral disorders.

In the last few months, Garcia and his colleagues (Garcia, Flores, Moll, Prieto, & Zucker, 1988) have completed a study of three elementary schools and seven bilingual classrooms in the Phoenix, Arizona area. These schools and classrooms had been nominated by local educators as effective schools whose students were attaining at or above grade level on standardized achievement tests.

Characteristics of these effective bilingual classrooms were:

- key emphasis on ensuring effective communication between teacher and students and between students and students;
- guided by an integrated curriculum with thematic organization of instructional objectives, instruction was characterized by
  (a) student collaboration in almost all academic activities,
  (b) minimal individual task assignments, and
  (c) a highly informal almost familial social and collaborative relationship between teachers and students;
- an emphasis on student writing (composition) as early as Kindergarten; student daily interactive journals were used which allowed students to "discuss" topics of their choice with teachers on a daily basis; teacher responses to the student's journal entries were directly associated with the quality and quantity of the students' writing.

Teachers in these effective classrooms:

- were highly committed to educational success of all their students;
- perceived themselves as academically demanding;
- considered themselves instructional innovators (kept abreast of and used new psychological and social theories to guide their instructional approaches);
- continued to be involved in professional development activities and small-group teacher networking;
- had a strong and evident commitment to student--home communication; and
- had flexibility and a certain amount of autonomy in implementing the curriculum and instructional practices based on student needs.

The principals in the three schools:

- tended to be highly articulate regarding the curriculum and instructional strategies undertaken in the classrooms in their schools;
- were highly supportive of their instructional staff; and
- recognized the importance of teacher autonomy, while coping with the pressures to conform to district policies regarding curriculum and instruction for purposes of academic accountability.

The parents:

- were generally satisfied with the education of their children;
- supported the educational endeavors of their children;
- strongly advocated student academic success as a pathway to their children's economic betterment.

Each of these latter studies, as well as a number of studies (Wong Fillmore & Valadez, 1986) reported in the 1986 edition of the Handbook of Research on Teaching, point to the importance of use of the student's home language and culture as well as English for mediating instruction.

Nonetheless, it is entirely possible to have some well-trained and skillful bilingual teachers who use the native language of the students, incorporate the home culture in their teaching, have well managed classrooms, and engage in active teaching, and still not have an effective school for bilingual students.

This latter set of studies seem to suggest that to create and maintain an effective school for these youngsters, one has to look not just at the bilingual classroom, or all of the classrooms in the bilingual program, but to go beyond to a wider dimension. The system in which these classrooms and program are embedded must be examined. It is here that the effective schools movement and the literature on which it is based can be of particular help to bilingual education educators.

Implications for Title VII and Other ESL/Bilingual Education Program Directors

What conclusions can be drawn from the "effective schools literature" that have implications for bilingual education and other special language assistance programs for Limited English Proficient students? First, the school is a complex social system with many interacting components that operate together to influence achievement. Thus, programs for LEP students exist as a part of a total system.

Variables in the school environment that have a positive effect on learning do not exist as independent entities. They interact with each other. Addressing only one variable, or one set of variables, will result in little, if any, substantial change. That is, improving bilingual teachers' classroom skills will have little long lasting effect on student achievement if (a) the mission and goals of the school are unclear, (b) there is a mismatch between curriculum and instructional goals or between what is taught and what is tested, (c) expectations are low, (d) the school climate is such that there are many disruptions and lack of order, and

(e) there is a lack of instructional leadership that brings it all together.

Second, effective schools exhibit certain characteristics. The evidence strongly supports the view that an effective school for LEP students exhibits all of the characteristics of an effective school for mainstream students and, in addition, it will have special characteristics related to the language and culture of the students.

In an article in a recent edition of the NABE News, Santiago (1986) described his vision of an effective school for language minority students. He states that this school will have a healthy social organization with the following characteristics:

(1) clear academic goals and social behavior goals,
(2) order and discipline,
(3) high expectations,
(4) teacher efficacy,
(5) pervasive caring,
(6) public rewards and incentives,
(7) administrative leadership, and
(8) community support.

Inside the classroom, [it will exhibit] instruction and curriculum with:
(1) high academic learning time (time on task),
(2) frequent monitoring of student progress,
(3) coherently organized curriculum,
(4) a variety of teaching strategies, and
(5) opportunities for student responsibilities (p. 6).

It sounds beautiful, doesn't it -- and it also sounds "doable." But if this school in our hearts and heads is to become a reality in school districts all around the nation, then program, or project directors may have to take on a different, or expanded, or perhaps a more aggressive role than they have assumed in the past.

Program directors may have to take on a more forceful and expanded role in instructional leadership. In some cases, the principal may be unable or unwilling to provide the guidance needed for an effective instructional program for LEP students. Program directors may have to personally devote more time and energy to assisting school personnel in clarifying and understanding the school's goals and missions as applied to the education of these students. This may mean they will want to learn even more about curriculum and instruction in order to enhance or develop effective teaching practices by their program's teachers.

Program directors may have to look more closely at their staff development activities. Perhaps they will need to spend more time observing instruction, providing feedback to teachers, arranging peer coaching, designing and arranging for training sessions that are specific to the needs of their teachers and to the immediate needs of their program.

Program directors may need to spend more time overseeing the monitoring of student progress and in helping teachers analyze test results and in using these analyzes for instructional planning. They may need to take steps to ensure that these analyses are used in campus and district planning.

Program directors may have to demonstrate more forcefully, to teachers and parents alike, that they believe that the mission of the school is instruction -- and to see to it that the resources, activities, and schedules that they can influence are directed toward instruction.

Program directors may have to find not only more, but better, ways of involving parents in the education of their children not just in the activities that the ESL/Bilingual Education Program sponsors -- but in those that are intended for school-wide participation (such as the local PTA or PTSA, science fairs, athletic booster activities, open school board meetings).

And above all, program directors must believe and demonstrate by their actions and words, that all students can learn: (a) publicize LEP students' successes; (b) display their accomplishments on the bulletin board in the hallway; (c) recognize their successes at all-school assemblies; (d) make sure their work appears in the school newsletter; and (e) convey to teachers that all students are expected to master the basic skills and that teachers are responsible for producing learning and setting and holding consistently high, but reasonable, expectations for all children. If appropriate instruction is provided and realistic high goals are set, children tend to strive to reach them -- and academic achievement increases.

The Effective Schools Movement has demonstrated that schools can and do make a difference. Effective schools for language minority students have been identified and described - - we know that they exist - - and we know what they look like. I believe that the school that Ramon Santiago envisioned can become a reality -- and can become the norm, rather than the exception. Each of us as educators of language minority students have a role to play in creating those schools. What we have learned from the "effective schools research" can assuredly assist us in fulfilling that role.

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CONTEXTUAL ELEMENTS IN A BILINGUAL COOPERATIVE SETTING: THE EXPERIENCES OF EARLY CHILDHOOD LEP LEARNERS

Lilliam M. Malavé

Abstract

This paper presents the results of a study that investigated contextual elements and the experiences of LEP students in bilingual early-childhood-cooperative instruction. It also illustrates an observation system developed to examine contextual elements and the experiences of CLD students in bilingual classrooms. Indicators of verbal and non-verbal behaviors and the students' choice of language were used to examine the experiences of the target students. The study concluded that participation in cooperative instruction activities benefits LEP students.

INTRODUCTION

Statement of Purpose

The purpose of this study is to investigate contextual elements present during cooperative learning instruction in bilingual/ESL early childhood classrooms. This research conceptualizes an observation system to study contextual elements and the experiences of culturally and linguistically diverse students. Specifically, the study examines bilingual/ESL second grade classroom features and the experiences of limited-English proficient (LEP) learners. Two levels of the element classroom features were examined: setting and instructional practices. The levels of the element experiences of LEP-learners examined were: behaviors exhibited and language preferred. The research questions addressed in this study were generated from the literature, and from a study conducted to pilot the system of observations. The pilot study was also completed to formulate the research design and to collect information uniquely relevant to bilingual/ESL settings (Malavé, 1990).

Research Questions

What was the extent of involvement in instructional tasks exhibited by early childhood LEP learners during cooperative instruction activities?

What was the of extent of social interaction exhibited by early childhood LEP learners during cooperative instruction activities?

What was the extent of use of the two languages (L1 & L2) by early childhood LEP learners during cooperative instruction activities?

What were the purposes of the verbal behaviors observed , to whom were the behaviors addressed, and what language (L1, L2 or both) was selected to expressed the behaviors?

Do the research findings support the pilot study's conclusions related to both instructional modes, teacher and student-centered cooperative learning?

Review of the Literature

There is a small but growing research literature that examines cooperative learning in relation to the school performance of bilingual and limited-English proficient (LEP) students. This literature defines cooperative learning as a mode of instruction consisting of small groups with a significant number of children whose native language (L1) is other than English (L2). A large number of these studies emphasize the impact that language (L1, L2) proficiency levels have on the academic and social outcomes of these children. The frameworks generally utilize an established model of cooperative instruction in which groups of two to six children are engaged in tasks that require cooperation and positive interdependence (Slavin, 1983; Bejarano, 1987). Successful completion of the task results in rewards for all the small group participants (Slavin, 1983).

While it is evident that research on cooperative learning and bilingual or LEP students is at an initial stage; several investigations which include significant findings for limited English-proficient students have been completed. Some research findings have lead investigators to establish that this approach can be used with all LEP students, in any type of program or class, and at all language proficiency levels (Jacobs & Mattson, 1987). Swain (1985) has pointed out two academic outcomes of cooperative learning which are directly related to language development: more complex language input for students and more opportunities to refine communication through natural talk, or production of "comprehensible output". Kagan (1986) has established three social outcomes relevant for second language and bilingual education: provision of a more democratic less competitive classroom environment; improvement of race relations; and development of the prosocial skills involved in seeking and offering peer assistance and learning to maximize group as well as individual strengths.

An interesting research finding, documented by a series of longitudinal studies on successful bilingual instructional features, is the use of cultural elements during instruction. The native language has been identified as a carrier of culturally relevant information (Tikunoff, 1983; 1985). Culturally relevant information is essential to create a learning context familiar to the students. Context embedded information also provides a comfortable background that facilitates communication (Cummins, 1987). Therefore context embedded-culturally relevant-information, activities, materials and teaching strategies should be expected to serve as significant cultural carriers that enhance communication and therefore promote learning. Proponents of cooperative instruction in bilingual settings indicate that this instructional mode facilitates the use of cultural information carriers through the use of L1, and context embedded-culturally relevant-information, activities, materials, and teaching strategies. For example, the literature stresses that small group instruction facilitates the development of exercises and the use of materials based on the cultural heritage of the students. This familiar context should then be expected to promote the maintenance of L1, as well as ensure subject matter learning. Moreover, since children from diverse linguistic and cultural groups may differ in the way they learn, alternative instructional strategies may be necessary (De

Villar, 1987).

Cooperative instruction in small groups can serve as an alternative teaching strategy that facilitates the use of context-embedded -culturally relevant- activities and materials congruent with the learning style of the target population. The purpose of this study is to present an observation system to examine contextual elements unique to a learning setting designed to incorporate linguistically and culturally appropriate activities and materials for LEP students.

Conceptual Framework

After an extensive review of the literature and to follow up two previous investigations, an observation system was developed to examine the relationship of contextual elements and the experiences of culturally and linguistically different elementary/early childhood learners. The variables in this conceptualization and their respective indicators were drawn from the literature and from data gathered from two qualitative studies completed by the author. These studies focused on bilingual/ESL classroom instructional practices in elementary and early childhood settings (Malavé, 1990). Particular attention was given to the eco-behavioral research of Greenwood (1985) and Carta (1985), and the studies on environmental variables of Arreaga-Mayer (1985). The observation system also emphasizes significant contextual elements cited in the literature of effective instruction for culturally and linguistically different (CLD) learners (Tikunoff, 1983; Fillmore, 1976). It focuses on the characteristics of LEP students, ecological-instructional factors, and the learners experiences. The following chart demonstrates the indicators selected to illustrate the variables examined.

OBSERVATION SYSTEM TO EXAMINE CONTEXTUAL ELEMENTS AND THE EXPERIENCES OF CULTURALLY AND LINGUISTICALLY DIFFERENT (CLD) ELEMENTARY/EARLY CHILDHOOD STUDENTS

Children's Characteristics	Variables	Indicators
Language Cultural and Linguistic	Monolingual LEP Bilingual	Language Used First Language Dominant Language Second Language
Level	School Experience	K, 1st & 2nd grade Preschool Levels

Ecological Categories	Variables	Indicators
Setting	Subject Matter Program Design Classroom Organization	Science, Math, etc. Bilingual/Monolingual Mainstream/Resource
Instructional Practices Small/Large/Individual./	Grouping	Entire School Grade
	Type of Activities	Teacher Centered Stdnt. Centered
	Choice of Alternatives	Required/Suggested/ Non-suggested
	Language of Instruction	(L_1) First Language (L_2) Second Language
	Cultural Inf. Carriers	Stories/Games/Aud./etc.
	Task	Reading, Paper/Pencil, Workbook, Worksheet, Lecture, Media, etc.
Composition	Mix of LEP/Bil. & Monolingual students in Inst.	All LEP, All Bilingual, Bil.. & LEP, Mixed Groups
Location	Physical Placement of Observed Student	Next to Teacher, Tables, Equipment, Chairs, Alone, with Group, etc.
Materials	Objects Which the Student Engages or Attends to	Manipulative, Art Mat., Large Motor Equipment, Computer, etc.

Teacher Behavior

Categories	Variables	Indicators
Presence		
Adult	Primary Adult Interacting with Observed Student	Teacher, Aids, Student Teachers, Aux. Staff
Adult Behavior	Teacher Behavior Relative to Obs. Student	Verbal instruction Physical assistance Approval/Disapproval

Teacher Behavior (cont'd)

Adult Activity	Instruction/Non-intructional activities	Writing Acad. Group Play Read Aloud Read Silently Acad. Talk Ans. Questions
Focus	Direction of Teacher's Behavior	Target Child Only Target Child & Entire Group Other than Target Child
Position	Location of Teacher in Relation to the Obs. Child	In front of Student/Side Side of Group Among all Students in Group, Out of Room At Desk In Front of Class Behind Class

Experiences

Categories	Variable	Indicators
Involvement in task	Verbal & Non-verbal Behavior that Demonstrates the Participation of Students	Comments Answers Questions Clarifications Repetition Eye contact Manipulation of Mat. Physical Expression (gestures) Waiting Looking for Material
Non-involvement in task	Behavior which Compete with Involvement Behavior	Off Task Actions, Talking to Other, Facial Expressions, Inappropriate Play
Social Integration	Verbal/Non-verbal Involvement with Others	Child to Peer Child to Adult Adult to Child
Language Preference Language Used	Dominant Language Second Language	Spanish/English/ other

Experiences (cont'd)

Purpose	L_1 L_2	Ask/Converse Explain/Clarify Respond/Answer Repeat/Recall (group)
To whom	L_1 L_2	Peer Adult Self

The first element considered in this observation system is the population. It refers to culturally and linguistically different (CLD) children whose performance in the school setting appears to be directly influenced by unique cultural and linguistics characteristics. The diversity of studies available to explain the performance of CLD students vary in their focus, but two of the most common variables found in the literature of effective bilingual instruction are language skills and educational background. For example, the research focus can be on whether the child speaks one or more languages; or whether s/he is more fluent or proficient in L1 than English, or vice versa. However, the main objective of these studies appears to be the relationship between the first or second language and English language learning. Educational background, including years of schooling experience in the U.S. and other countries, is an additional student characteristic that appears to affect the school performance of CLD-LEP students .

Environmental factors used to explain the performance of CLD-LEP learners include classroom features such as the type of instructional practices implemented in the classroom and the setting . The research literature in effective bilingual schools has explored the use of different instructional practices in many subject matters with particular attention give to language arts, English as a second language, and reading. For example, Lorraine Valdez Pierce (1987) , and Krashen's (1981) theoretical notions deal with reading skills, and second language acquisition respectively. Less emphasis has been given to Science, Mathematics and Spanish language arts as well as to alternative teaching practices such as cooperative instruction. An exception is De Avila, Duncan and Navarreta's (1987) Finding Out/Descubrimiento approach. It presents a cooperative learning and dual-language content-based curriculum to help LEP students focus their perceptual apparatus on the essential features of the task. Furthermore, most of the research literature makes little distinction between the type of participation that children have in activities and the kind of program design and classroom organization existing in the setting. Of particular relevance is the classification based on categories such as bilingual, ESL or monolingual designs; and on structural categories such as resource or mainstream (self contained) classrooms.

Instructional practice is a predominant ecological feature found in effective bilingual schools research. Nevertheless, there is a need to focus on areas like the type of group and activity, the choice that the students have of participating in an exercise, the language used for instructional purposes, and the utilization of cultural information carriers during instruction. For example, it is apparent that previous research findings point to the use of cultural carriers as a significant effective-bilingual instructional feature, however there is little understanding of its contribution to learning. Furthermore, classroom observation studies point to the underutilization of culturally relevant information in language related educational programs (Malavé, 1990). In addition, instructional groups may be classified in many ways such as according to size (small, large, whole class, of one individual, an entire school) and to teacher orientation (student versus teacher centered). The size and composition of the group is of particular importance in a classroom organized to address the needs of culturally and linguistically diverse (CLD) students. More frequently than not, these classrooms include students who speak more than one language and demonstrate different levels of language proficiency. In addition most students show a different level of academic performance in each language. This mixing of children represents a deviation from regular instructional practices that tend to group children according to academic ability only. Cooperative instruction is an alternative teaching practice that differs from regular practices. It can contain small groups of children, who posses different academic abilities and speak more than one language, engaged in a variety of student or teacher- centered activities. In some settings the small groups can include children from many language backgrounds who demonstrate different language proficiency levels in their respective native language and English.

Another significant factor of cooperative instruction is that very often it provides students the opportunity to decide the extent of his/her participation. While most activities are required, frequently students can suggest how they will participate in an activity. An illustration would be one student's selection of a particular task of interest which is required to complete the whole small group assignment. However, most effective bilingual schools studies have focused on traditional methodologies that accommodate the native or dominant language of the child or provide for special second language instruction. Alternative teaching methodologies that promote the mixing of CLD children, democratize student participation, and incorporate cultural carriers other than L1 need to be explored. Particular attention must be given to practices that facilitate the integration of the home culture throughout the instructional process. For example, in addition to the native language of the child, instructional materials such as audio visual aids, stories, and games as well as the content of the lesson need to incorporate culturally-relevant elements. Cooperative instruction poses this challenge because it allows teachers the opportunity to design small group activities using context-embedded content and materials meaningful to the students. It is also based on the notion of group collaboration, a prosocial skill highly valued by many of our culturally different students. Furthermore, it allows for the mixing of CLD students and it promotes the complete integration of the home background into the instructional process.

McGroarty (1989) has identified six major benefits of cooperative work in settings of linguistics hetereogeneity: provides frequent opportunities for natural second language practice and negotiating of meaning through talk; offers additional ways to incorporate content areas into language instruction; contains innovative activities and materials that can create a favorable context for language development; allows language teachers to expand general pedagogical skills and to emphasize meaning as well as form in communication; and encourages students to take an active role in the acquisition of knowledge and language skills, and to stimulate each other as they work on problems of mutual interest.

A comprehensive review of the literature on cooperative learning and LEP students (Malavé, 1990) discusses the following rationales to support the use of cooperative instruction with LEP students: (1) Provides opportunity for face to face interaction (Jacobs and Mattson, 1987); (2) Raises the academic level of LEP students (Ibid, 1987); (3) Improves intergroup relations (Kalkowsky, 1988; Newman, 1987; DeVillar, 1987); (4) Provides for interpersonal and substantive academic-cognitive communication in the language(s) selected ; (5) Can be incorporated into ESL and bilingual methods or used as an alternative to traditional methods; (6) Produces benefits when used in L1 settings; and (7) Facilitates the use of cultural information carries.

The proposed observation system focuses on three main categories to describe the element experience. The categories are: the child's involvement or non-involvement in the task, the demonstrated social integration, and the language preferred. The collection of information about involvement or non-involvement focuses on verbal and non-verbal behaviors such as comments, questions, answers, clarifications made or requested, repetitions, eye contact with the instructing person or material, manipulation of objects, and physical expressions and gestures. Waiting behavior as well as a search for information or materials or any other indicator which shows that the student is constructively involved in a task must be noted. Data about non-involvement in task include verbal and non-verbal behaviors which compete with involvement behaviors. Social integration consists of verbal and non-verbal behaviors which demonstrate that the student is interacting with other children or with adults. The language preference category refers to the language used by the child, the purpose of the communication, and the person spoken to. The selection of the native or dominant or second language can depend on: the purpose of the conversation, the task in question, or the person addressed. The language used (L1 or L2) and whether the child asks, converses, explains, clarifies, responds, answers, repeats or recalls information can assist determining the purpose of the verbal behavior. The child's selection of a particular language to speak may also depend on whether s/he is talking to a peer or an adult.

There are additional significant factors that need to receive further attention by the bilingual/ESL effective schools research: the total composition of the group, the placement of the child, and the types of tasks and materials the student utilizes. It is becoming very apparent that the mixing of students of different language proficiency levels and abilities in instructional activities affects positively the performance of all the students, including LEP students. The physical placement of the child and the objects that the student attends to need also to be considered when examining the behavior of CLD-LEP learners. Student engagement with equipment, computers, and other motivating materials may affect the level of task involvement.

A growing number of scholars of bilingual/second language education are examining the relationship between teacher behavior and the performance of students. While utilizing traditional interaction models, these social scientists are attempting to create new paradigms that incorporate the unique elements of multilingual settings and the particular characteristics of the teachers to explain effective instructional processes (García, 1987). The presence and role of an adult, and the type of assistance that she/he provides influence the behavior of the child. The form of verbal, physical, or non-verbal assistance provided and the kind of approval or disapproval communicated, may encourage or discourage the child to participate enthusiastically in a task. The behavior of the adult present influences the students' interest in investing their time in instructional or non- instructional tasks, and in adopting receptive versus productive roles. For example, an adult reading to ESL learners encourages passive participation, listening in a second language. In contrast, students who are assisted creating an oral story in their second language practice actively both, oral and listening skills. The position of the teacher and the focus of his/her behavior are other elements that have an impact in the performance of the students. The child recognizes her/his place in relation to the adult's location and interest on him/her. Children react differently to being attended or ignored, being expected to or not to contribute to the group, being supervised versus guided and oriented, and to being physically close to or distant from an adult. It is therefore necessary to examine the extent to which all these factors impact the academic performance of CLD children in the school setting.

This review of the literature presented some of the research studies that have attempted to deal with the participation of children in bilingual settings, including cooperative instruction. Notions used to examine the performance of the students range from factors that explain the students' participation in cognitive tasks to factors that explain their social development. One of the issues highlighted is the need to explore to what extent the specific classroom features impact the experiences that promote active participation behaviors within the context of the instructional processes. The study of isolated factors or behaviors without regards for the influence of other contextual elements on the particular behaviors, offers only a partial representation of the dynamic interaction taking place in the classroom.

The nature of the dynamic interaction between the child with his peers, adults and other ecological factors can be examined through observations. His participation or lack of participation in the instructional process can be determined through his verbal as well as non-verbal behavior, and the language selected to make comments, answer questions, and provide or request clarification. Behavior which competes with involvement in the instructional task can be isolated from behavior which promotes academic involvement and social integration with the group. Social integration with his peers and adults is to a large extent dependent upon the child's ability to communicate with others. The language chosen can be an indicator of the preferred mode of communication with a particular person, in a selected setting, or for a specific purpose. If the intent of the lesson is to facilitate learning, of both content and language skills, the ability of the students to communicate during the learning situation is very relevant to the successful completion of the task. There is a need to understand the purpose(s) for this language selection. Do children select a special language for a particular situation or do they respond to the language input provided by those around them? Understanding the mechanism that triggers the selection of one language over the other or the mixture of both languages during the learning process can assist teachers in structuring the instructional process more effectively. A creative structure may enhance participation and promote academic and personal growth effectively. The proposed system of observation is an attempt to provide a framework for the study of contextual elements that influence the instructional process. It served to guide the investigation that follows.

METHOD

Sample

The sample population of this study consisted of five LEP/second grade children, three female and two male students from two elementary schools located in an urban school district. The schools are located in low middle socio-economic class neighborhoods in Western New York. All the subjects were of the same Hispanic background. The students were selected according to their participation in a cooperative learning classroom setting and their language proficiency level.

Those students selected participated in two different cooperative learning classrooms. The classrooms were selected from a group of teachers who volunteered. During the last two years the two selected teachers had participated in cooperative instruction-inservice training sessions provided by a State Education Department unit, the Board Of Cooperative Educational Services (BOCES). The teachers had also taken courses dealing with cooperative instruction. The students' language proficiency scores on the Language Assessment Scale (LAS), an instrument approved by the New York State Department of Education for the official identification of LEP students, were used to determine the subjects eligibility for the study according to the language criterium. The population of interest consisted of students from the selected classrooms who scored three on the LAS. The target school district has established that students scoring three on the LAS are limited-English proficient (LEP). A LAS score lower than three results in a classification as non-English speaking (NES) and one higher than three requires a fluent-English speaker (FES) classification. A systematic random sampling method was used to select the five subjects from each classroom. Four strata were obtained and five children were drawn using the nth. number random selection. The nth. number in this case was every third child. Students were then labeled A, B, C, D, and E to protect their identity.

Procedures and Instrumentation

Two bilingual teachers were selected from a list of volunteers suggested by the school administrators and the observers. Bilingual teachers who were implementing cooperative instruction in their classrooms and who would volunteer for the study were identified. The teachers were explained the purpose of the study and were shown copies of the observation guides. They were asked to provide the opportunity to observe the subjects during mathematics or science lessons. No specific type of cooperative instruction approach was targeted. The only methodological criteria identified was whether the lesson was teacher or student-centered. Teachers were informed that the unit of analysis was the child, and that any information recorded related to the teacher's behavior would be that behavior which related directly to the child under observation. The observations were scheduled at the convenience of both, the teachers and the observers, but only during cooperative learning activities dealing with mathematics and science.

The data collected consisted of observational records generated by three trained observers. Three graduate students who are bilingual teachers attended two observation skills trainings. These observers had participated in a pilot study in cooperative instruction. As part of the pilot study the observers attended over five sessions on developing observation skills in early childhood settings . After the pilot study was completed a training manual was developed to conduct observations in bilingual/ESL elementary school settings. The observers participated in these additional observation training sessions using the observation manual, as well as materials and exercises from Boehms' and Weinberg's second edition of the Classroom Observer(1987). The training sessions consisted of readings, lectures, class discussions, simulated exercises, and practice observations. The observers had completed a review of the literature on cooperative instruction, so they were very familiar with the field of investigation. Since they were involved in the pilot study, they had become familiar with the focus of the research.

The observers participated in sessions that explained the development of the instruments used to collect and organize the data. The first instrument was as an observation guide which provided direction during the collection and the organization of the data. However, while this process assisted the observers in becoming familiar with the categories, the large number of categories included in the guide prevented the observers from selectively recalling and focusing their observations only on pre-selected categories. The categories in the instrument were selected from the observation system described above.

The categories reflected in the instrument were selected according to Escobedo and Flores' methodological formulations (1979; 80). The first two parts of the observation guide consisted of a checklist form. Information to assist developing a profile of the classrooms observed was collected. Items such as the student identification letter, the observation number, the school number, class (teacher), program name, grade, and time and date of the observation were included. Additional items listed were: type of setting, subject matter, adult(s) present, materials in use, and on going activity. A second section generated information related to the type of setting and activities taking place. Indicators included monolingual, bilingual, and ESL maintenance and resource settings. The item labeled "activities" was used to identify the type of subject related activities being held. For example, an activity in mathematic could have focused on problem solving versus computation skills. These categories are probably more useful when the number of subjects and or observations is larger than the one selected in the study reported. The second part of the observation guide included items related to the instructional practices and the behaviors exhibited. Indicators selected for the instructional practices were: grouping(large, small, individual instruction), choice of alternative (required, suggested, selected, other), type of activity (describe), adult present (in small group, called upon, providing individual attention, none), language of instruction (native, second, both) and it's purpose (initiate, answer, clarify, other), and cultural information carriers (native language, stories, audio-visuals, manipulative materials or toys, other) evident.

As operationally defined for this study, the behavior category included indicators that pointed to participation, task involvement or non-involvement, social interaction, and language behavior of the learners observed. The indicators consisted of specific observable behaviors. Thus, indicators of task involvement included non-verbal behaviors such as: establishing eye contact to focus attention, manipulation of materials, head oriented to the task, physical gestures, facial expressions; and verbal behaviors such as comments, answers, questions, requests for or efforts to provide clarification, expressions, and responses. Indicators of non-involvement in tasks included verbal and non-verbal behaviors. The verbal behaviors listed included: made comments, responded to others, talked to self, did not answer, and offered or requested clarifications. Non-verbal behaviors encompassed: attended to unrelated task, did not look at the teacher (adult) or peer, ignored the materials, touched the material but did not use it, did not have the head oriented to the task, and left the task or room. Indicators of social interaction involved verbal and non-verbal behaviors such as: child to child, child to adult, subject or peer initiated, and adult initiated. Language behavior indicators selected were dominant/ native or second language used, purpose (initiate, respond, ask, answer in group, clarify, other) of the language behavior, and to whom the behavior was addressed (adult, peer, self). The indicator "other: explain" appeared in all the categories to provide for additional behaviors or practices not listed in the guide.

The observation process followed the framework developed by Henry Trueba (1982) to achieve ethnographic validity in a bilingual-bicultural setting. The process adhered to these guidelines:

- The observers were bilingual Spanish-English, the two languages used by the children.
- The observers recorded all the events and the interaction of children with peers and adults, including a description of the setting, materials, and activities; and focused on the behavior of the students and the teacher in relation to the particular child and the contextual elements of the setting.
- While only one observer completed each observation, to provide for interrater reliability, each observer had at least one observation verified by a second observer. This step attempted to increase the accuracy of the process. It was necessary to ensure the appropriate recording of the elements described above as well as of the organizational structure from the point of view of the teacher and the student.
- The utilization of a bilingual observer and of a verifier for selected observations also permitted the identification of alternative contextual cues within the possibility of parallel and simultaneous activities.
- The principal investigator is also bilingual-bicultural (Spanish-English), a factor which facilitated the analysis and review of the data, as well as the analysis of the communicative function of each language.
- The analysis of the data was completed by the principal investigator and an observer. The fact that they are both bilingual, ensured an understanding of the subjects' position in the language spectrum,

from LEP with good command of L1 to LEP with deficiencies in L1.

Meetings with the respective school officials took place to secure permission to complete the observations. Each observer and the school teachers scheduled the dates for the observations during lessons using cooperative instruction. The lessons were in the subjects of math and science.

Every child was observed while engaged in small group activities. Four subjects were observed five times, for a period of five minutes each observation, during math lessons. One subject was observed four times, for five minute periods, during science lessons. The observers sat close enough to hear the students and to take notes, but were expected to behave in a non-intrusive way as much as possible. Each team member took notes independently. They expanded their notes soon after each observation was completed to make sure that they could recall the classroom events and develop recent and clear descriptions. Observers were instructed not to share or consult about their observations to maintain the independence of the data collected. They were asked to review the notes at home to clarify the expanded records.

One of the observations of each observer was verified. An observer was selected to corroborate the information recorded in one of the observations of another observer. This observation was treated like the rest of the observations. However, this data was compared with the actual observation to identify discrepancies and establish interrater reliability. The observations were recorded in paragraph form. Each line of the paragraphs was numbered to facilitate the categorization of the information.

The data was then categorized using an analysis form of the observation guide. Two tally forms and one analysis form were developed to transfer the information from the observational records. One tally form included the information categories quantified, in other words, it presented the frequency of the indicators per observation, per subject matter, and per child. Another form was developed to include the information provided by all the observers in an integrated fashion, it included the frequencies for all the children during all the observations. The analysis form was used to transfer any information related to the specific category or behavior included in the observation guide. The information in the category "other" was used to discover any other behavior or potential indicator not pre-identified in the observation guide.

The analysis form contained the same data that the observation guide, the information was transferred by categories. An analysis form was completed for each child for each observation. The information categorized in the analysis form was transferred to tally forms. The analysis form for each observation per child was tallied in an individual tally form. An intergrated tally form was used to include all the frequencies of the categories tallied for all individual tally forms for all the children. One of the observers reviewed and categorized all the data collected. Discrepancies in the corroborating observations were found to be minor. However, the discrepancies were discussed with the particular team to attempt to record the accurate behavior and to identify any interrater reliability limitation. Since all the observers were part of the pilot study and all had completed a comprehensive observation skills training, very few discrepancies were discovered. The observer who transferred the data from the narrative to the observation guide analysis form also transferred the frequency of behaviors into the individual tally form. The integration of the frequencies of each behavioral category for all the observations of all the children was completed by the author. The totals of the integrated frequencies for all the children were used to present the results of the observations.

RESULTS

There were twenty four (24) observations completed, twenty (20) in math classes and four (4) in science classes. All the observations took place during small group activities in cooperative instruction lessons in which the bilingual teachers were using more the native language of the children than English or both languages. There were twenty math lessons in Spanish, one (1) in English, and two in which both, English and Spanish were used. The twenty math lessons were student-centered activities and the four science lessons were teacher-centered activities. No other cultural information carrier (stories, audio-visual aids, toys, and others) than the use of the native language of the child was observed during the twenty four periods.

Histograms were developed to illustrate the results of the categorization. For the purpose of this paper the frequencies were grouped according to behaviors that demonstrated: involvement/ non-involvement , social interaction, language preference and the person to whom the verbal behaviors were addressed. The histograms in the following pages represent the frequencies of the observed behaviors during cooperative instruction lessons designed to address the needs of culturally and linguistically diverse students. They illustrate the behaviors of limited-English proficient students in relation to task involvement, social interaction, language use (L1 or L2), and the person to whom the verbal behaviors were addressed.

The results illustrate that 97.6% (404) of the behaviors observed (414) demonstrated involvement in the tasks. Figure I on the next page demonstrates that the majority of these behaviors (69%) were non-verbal. Among the non-verbal behaviors, manual manipulation of materials was the most commonly observed behavior with a frequency of 46%. Eye contact (22.5%) and physical gestures (21.5%) followed . Head oriented to the task and facial expressions had frequencies of 5.4% and 4.6% respectively. The data collected illustrate 125 verbal behaviors (31%) that demonstrated that the children were involved in their tasks. These behaviors consisted of comments (71%), individual answers (19%), and questions (10%).

The results presented Figure II indicate that the number of non-involvement behaviors was minimum. Only 10 instances were recorded, of which 80% were non-verbal behaviors and 20% verbal behaviors. Non-verbal behaviors were engaged in an unrelated task (4), not looking at the individual instructing (1), ignoring the material received (1), and touching unrelated material (1). The only verbal behavior observed, related to non-involvement, was making spontaneous comments (2) not related to the task. However, non-involvement behaviors (10) represent only 2.4% of the total number of frequencies observed (414).

FIGURE I
INVOLVEMENT BEHAVIORS

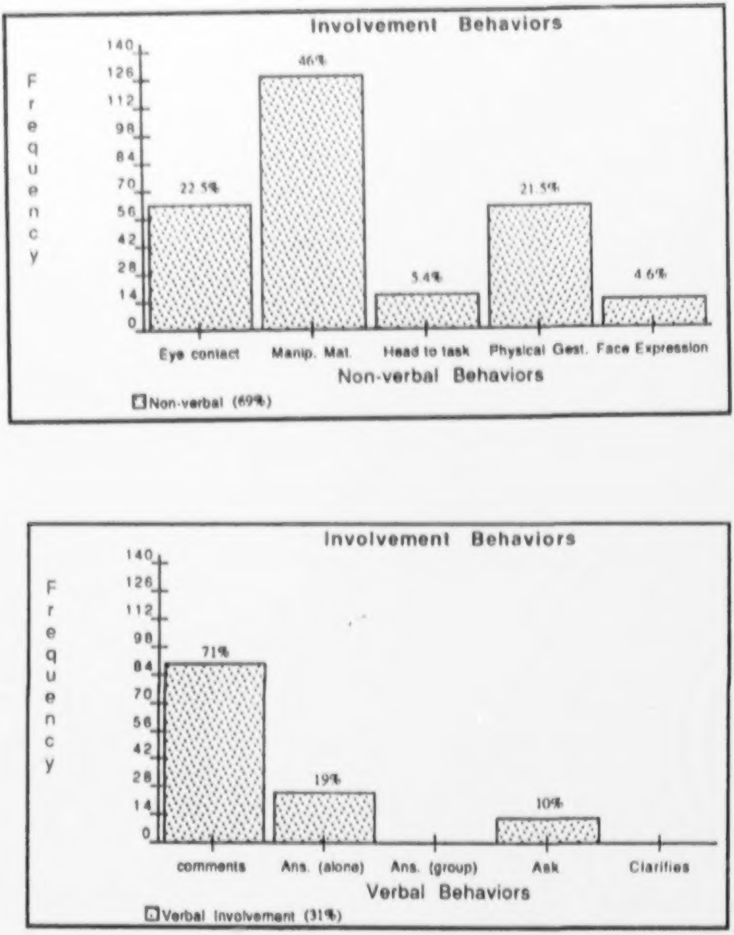


FIGURE II
NON-INVOLVEMENT BEHAVIORS

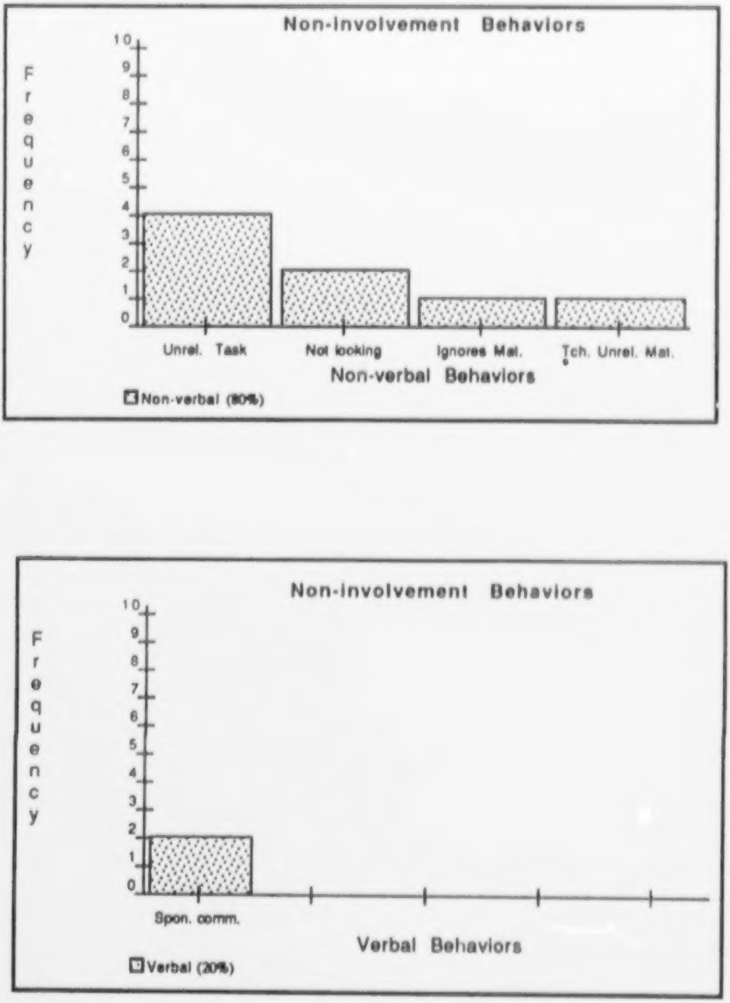
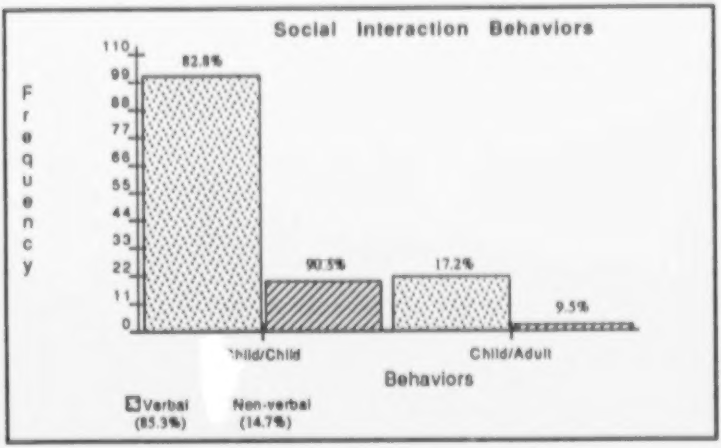


FIGURE III
SOCIAL INTERACTION BEHAVIORS



The histograms presented in Figure III illustrates the frequencies of verbal and non-verbal behaviors (143) related to social interaction with other children (C->C) or with adults (C->A). There were more verbal (85.3 %) than non-verbal (14.7%) social interactions. The largest number of social interactions took place between children (C->C) in both categories, verbal (82.8%) and non-verbal behaviors (90.5%). Children interacted with adults (C->A) less time, as indicated by both, verbal (17.2%) and non-verbal (9.5%) behaviors. Verbal behaviors (3) where children spoke to themselves represent 2.1% of the total number of verbal behaviors (125) where children demonstrated involvement in tasks. These three instances were not considered behaviors which constituted social interaction.

FIGURE IV
LANGUAGE PREFERRED

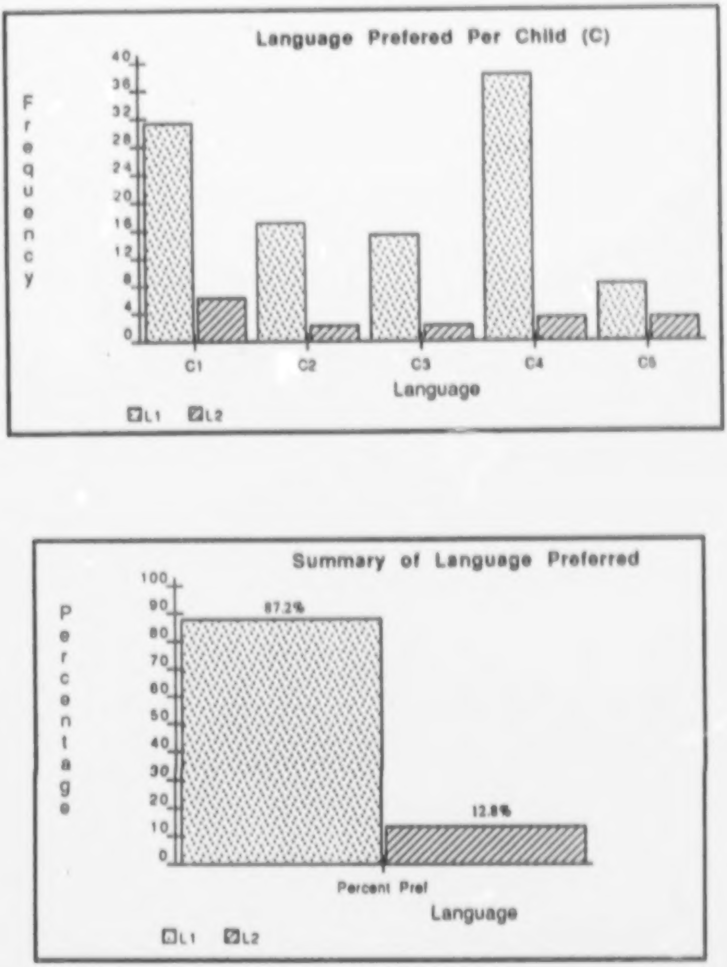
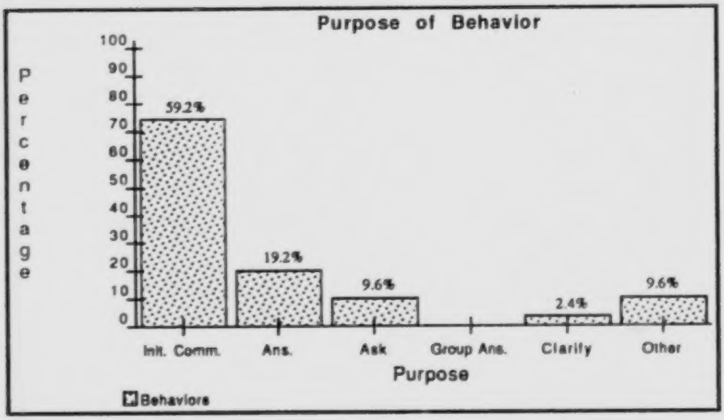


Figure IV, presents the frequencies of the language selected by the children during verbal behaviors (125) that demonstrated involvement in tasks. Students used their dominant language (Spanish) more times (87.2%) than they used their second language, English (12.8%).

FIGURE V
PURPOSE OF THE VERBAL BEHAVIORS EXPRESSED



The above histogram presents the purposes of the total verbal behaviors expressed (125) by frequencies. It is evident that the majority of the verbal behaviors were expressed to make comments: 59.2% offered an initial comment, 2.4% commented to clarify, and 9.6% represented other types of comments. Some (19.2%) verbal behaviors answered questions and only a few (9.6) asked questions.

FIGURE VI
TO WHOM THE VERBAL BEHAVIORS WERE ADDRESSED

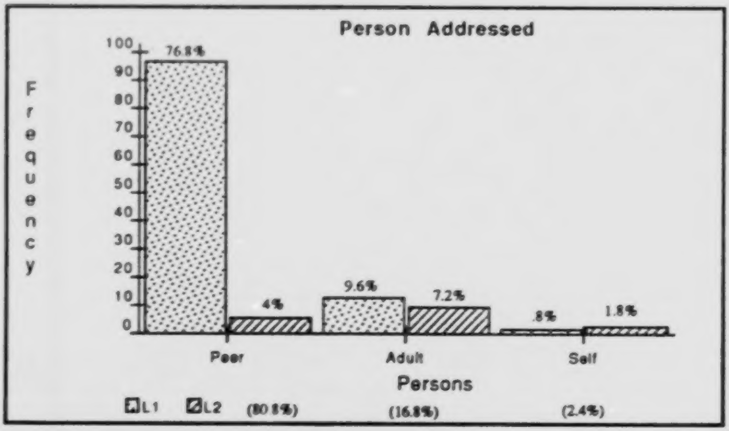


FIGURE VI illustrates that most of the verbal behaviors within the involvement behavior category were addressed to peers (80.8%), of which the majority of behaviors (76.8%) were in Spanish and the minority (4%) of them were in the second language (English). Only some (16.8%) of the verbal behaviors were used to address an adult, of which 9.6% behaviors were in Spanish and 7.2% behaviors were in English. The frequency of verbal behaviors in which the children appeared to be talking to themselves was 2.4%, with .8% in L1 (Spanish) and 1.8% in L2 (English).

In relation to instructional mode a fact must to be established: twenty of the twenty four observations were completed in student-centered activities. Furthermore, the four observations of teacher-centered activities were completed in science classes versus the observations of student-centered activities which were all completed in math classes. The results therefore, reflect mostly the behavior of the children in student-centered rather than teacher-centered activities. The results for teacher-centered activities represented 3.2% of the non-verbal behaviors and 8.8% of the verbal behaviors that demonstrated involvement. However, 100% of the small number of non-involvement behaviors (10) were found in the teacher-centered activities of the science lessons.

In summary, the majority of the total behaviors (414 or 100%) observed were considered behaviors that demonstrated involvement (404 or 97.6%). Only 2.4% (10) behaviors demonstrated non-involvement, with more non-verbal (8) behaviors than verbal (2) behaviors. Of the behaviors that demonstrated involvement, there were more non-verbal behaviors (279) than verbal behaviors (125). Both, the verbal and non-verbal behaviors were examined to determine with whom the child interacted. It was found that children interacted more through verbal behaviors (143 or 85.3%) than non-verbal behaviors (21 or 14.7%). The results also indicated that the children interacted more with other children (120 times) than with adults (23). The verbal behaviors (125) that demonstrated involvement in tasks were examined to determine the languages used (L1 or L2) to interact with other children or adults, the purpose(s) of the verbal behaviors expressed, and the person to whom the behaviors were addressed. The results indicate that the children used more (109) their native language (Spanish) than English (16). Involvement-verbal behaviors were used to: originate comments (74), answer (24) or ask (12) questions, offer other types of comments (12), and clarify (3). The results also illustrate that children used more their native (109) than their second language (16). They use their L1 to address their peers (96) and adults (12). In contrast, they only used their second language to addressed their peers five (5) times and to talk to adults nine (9) times. A very small number of verbal behaviors were observed when the children appeared to be talking to themselves. Apparently, the children on two (2) occasions used English and on one (1) occasion used Spanish to speak to themselves. In relation to teacher versus student centered activities, the results indicate that all the non-involvement behaviors were observed during teacher-centered activities.

DISCUSSION OF FINDINGS

The research findings support the use of the system of observations to examine contextual elements present during cooperative learning lessons in bilingual/early childhood settings. The data illustrate unique features of bilingual settings and provide information relevant to the experiences of culturally and linguistically diverse students. The findings show a variety of indicators to illustrate the behaviors and the language selection expressed by LEP students in bilingual settings which implement a particular instructional approach, cooperative learning.

The study's findings demonstrate specific verbal and non-verbal behaviors conceptualized in the observation system in relation to the use of cooperative learning in a bilingual setting designed to address the unique needs of limited-English proficient students. The data provided information about verbal and non-verbal behaviors that illustrated: the extent to which the children were involved in their tasks, the extent of the students' social interactions, the use of L1 and L2, the purpose(s) of the verbal behaviors expressed, and the persons to whom the verbal behaviors were addressed.

The indicators established in the system of observation related to the children's involvement in task were both verbal and non-verbal behaviors. The system's non-verbal behaviors encountered in the observations consisted of: eye contact, manual manipulation of materials, head oriented toward the task, physical gestures, and facial expressions. The verbal behaviors encountered were: comments related to the tasks, individual and group answers, and asking questions. A few clarifications were provided or requested. While only one non-involvement verbal behavior was found, spontaneous comments; four non-involvement/non-verbal behaviors were found: looking at an unrelated task, not looking at the instructing person, ignoring (such as not looking) the material, and touching a non-task related object.

Furthermore, the findings illustrate a significant number of both, verbal and non-verbal behaviors that illustrated the instances in which children interacted with other children or adults. The verbal behaviors also provided information about the purpose(s) of these behaviors, the language selected to speak, and the persons to whom the behaviors were addressed.

Extent To Which Children Were Involved in the Tasks

In relation to the level of involvement in cooperative learning, the findings support the notion that LEP children participate and get involved in the instructional tasks during cooperative learning activities in bilingual settings. The data generated in this study presents additional evidence to support the pilot study's conclusion: LEP students demonstrate more involvement than non-involvement behaviors in instructional tasks in bilingual/cooperative learning settings. The study demonstrates that for the selected bilingual settings the LEP students' involvement behaviors in mathematics and science activities outnumbered the non-involvement behaviors overwhelmingly. It seems appropriate to suggest that this study supports the position of Jacobs and Mattson (1987) that cooperative learning can be used with LEP students. In addition, the data supports the notion that alternative non-traditional instructional approaches, such as cooperative learning, can be used in bilingual settings with children who are not English dominant without a detriment to their level of involvement. It is important to note that this study supports the use of cooperative learning for LEPs in additional areas other than just language arts activities, mathematics and science. Also, the fact that a large number of involvement behaviors were of a non-verbal nature seems to point out the need to explore non-traditional measures of participation in classroom activities to determine the extent to which children are or are not engaged in instructional tasks.

This study also supports one of the findings of the pilot study previously completed (Malavé, 1990). It concludes that while the level of involvement of LEP students in instructional tasks is evident in both cooperative learning modes, teacher or student-centered activities, the level of non-involvement is apparently higher in teacher-centered than in student-centered activities. In both studies the level of involvement is substantially higher than the level of non-involvement in the two modes of instruction.

Extent To Which Cooperative Instruction Facilitates Social Interaction

The findings of this study demonstrate that LEP students interacted with each other as well as with adults during the selected math and science lessons in bilingual settings that implemented cooperative learning instruction. However, the fact that the students interacted five times more with their peers than with the adults points to the possibility that this instructional approach may provide unique language contact opportunities for LEP students. Cooperative instruction seems to provide a large number of opportunities for children to interact verbally with peers. The data indicate that there were six more times social interactions through verbal behaviors than through non-verbal behaviors. Furthermore, the literature has established that face to face verbal interaction is essential for meaningful communication (Enright and McClosky, 1985) and for the acquisition of language skills (De Villar, 1987; Fillmore, 1976). Therefore, it can be stated that this study's findings provide support for the use of cooperative instruction to facilitate peer face to face verbal interaction. This interaction promotes meaningful communication and the acquisition of language skills. In addition, since the instances of peer to peer interaction outnumbered the amount of peer to adult interaction, it is possible that the use of this instructional approach promotes more academic exchange between peers than traditional approaches heavily founded on adult to child interactions. There is also a possibility that much of this interaction takes place between LEP and fluent English speaking students. As a result LEP students may receive academic as well as linguistic related benefits from this interaction with peers.

The literature establishes that cooperative instruction improves group relation and self esteem because the students develop a positive interdependence (Kalkowsky, 1988; De Villar, 1987; Newman, 1987). Since positive interaction with others is a pre-requisite for the development of a positive interdependence in cooperative instruction, it can be stated that to facilitate positive interaction is to promote the development of positive interdependence in cooperative instruction. However, since the findings of this study support the notion that cooperative instruction provides the opportunity for a task involvement type of social interaction, it then can be stated that this study supports the use of cooperative instruction to promote positive interdependence. The data demonstrated that students interacted with each other in task involvement behaviors, in other words, behaviors expected to promote the development of positive interdependence.

In relation to teaching mode, the data demonstrate that there was much more child to child than child to adult interaction in general. However, there was the same amount of verbal interaction among children than between children and adults in the teacher-centered activities.

Extent To Which Children Select their Native or Second Language

The literature states that cooperative learning benefits can be expected when it is used in bilingual settings which utilize the native language. Research also corraborates the use of L1 among bilinguals within the classroom situation. In contrast to the pilot study, the data of this research demonstrate that the children selected their dominant (native) language overwhelmingly over their second language to express task related communication and to interact socially. Nevertheless, the findings illustrate the use of some L2, even though it was used less frequently than L1. But, the literature also states that the alternation of languages in cooperative instruction among bilinguals ensures participation regardless of language choice (DeVillar, 1987). Therefore, it is possible that the selection of L2 by the subjects represents a positive alternation of language, an effort associated with children in their initial stages of becoming bilinguals.

An additional reason to explain the selection of L1 over L2 is the fact that there were more observations in student-centered activities in this investigation than in the pilot study. This fact could have facilitated the opportunity to gather more information on children interacting in their L1 in this research than the opportunity provided in the pilot study. Behounek et al. (1988) state that student-guided activities allow students to select the language of their choice. The dominant use of L1 also represents the influence exerted by the teachers' use of L1 in this research versus the influence exerted by their use of L2 in the pilot study. According to Boohenek et al., (1988) the guidance of the teacher during teacher-centered activities can influence the choice of language.

Purpose of the Verbal Behaviors Expressed

The data indicate that students used the majority of their verbal expressions to make task-related comments. The largest number of comments represents instances in which children offered initial comments for task related communication. The other verbal behaviors indicate that the students made clarifications, and answered and asked questions. This finding is relevant to cooperative learning in general and bilingual education settings in particular because these behaviors are of the type asociated with active content and second language learning. The extensive amount of comments apparent in the results may reflect the notion that cooperative learning settings are said to require substantive verbal explanations. But, since substantive verbal explanations seem to be associated with academic success, it can be stated that cooperative bilingual education contributes to the academic success of LEP students.

Effective cooperative learning in bilingual settings needs to provide strategies relevant to second language and content acquistion. For example, Kagan (1986) states that settings must provide democratic classroom environments conducive to the development of pro-social skills involved in seeking and offering peer assistance. McGroarty (1989) stresses that effective cooperative work settings of linguistic heterogeneity can: provide opportunities for natural second language practice and negotiation of meaning through talk, and encourage students to take an active role, and stimulate each other as they work in problems of mutual interest. Behounek, Rosembaum, Brown, and Burkalow (1988) mention that cooperative learning increases the opportunity to participate due to the low risk environment created and that it ensures significant opportunities to practice. A non-threatening environment is conducive to student engagement in conversations, prerequisite for natural second language practice (Krashen, 1981). Therefore, the extensive amount of verbal interaction can be the result of the comfortable learning environment created during cooperative learning lessons. This environment is conducive to verbal behaviors which are congruent with behaviors associated with increased second language and content learning of LEP students.

Persons to Whom the Verbal Behaviors are Addressed

The data illustrates that the children spoke more to their peers than to adults. It also illustrate that the verbal behaviors represented mostly task-involvement behaviors. This finding provides support for Jacobs and Mattson's notion that cooperative learning increases the opportunity for face to face interaction among peers (1987). When considering that peer to peer verbal interaction is an essential feature of second lenguage learning by LEP students (Fillmore, 1985), the use of an instructional strategy conducive to this interaction is a very desirable element in a bilingual setting. DeVillar (1987) has also documented that mix ability groupings are often a common feature of a cooperative setting, thus children with mix proficiency levels in both L1 and L2 would appear to be a natural occurrence within this setting. Verbal interaction with L2 dominant children relative to completing a common task may explain the behaviors addressed to other peers and adults in L2. Therfore since cooperative learning provides the opportunity for language choice as well as academic exchange, it is appropriate to expect that this instructional approach promotes both, language and academic-cognitive communication in the language selected.

To summarize, the most important finding of the study is the fact that LEP children demonstrated that they could participate in cooperative instruction without a detriment to their level of involvement, amount of social interaction and use of native language. The findings support the notion that cooperative instruction can provide LEP children opportunities to: be involved in instructional tasks, participate in face to face interactions with peers and adults, use their native language, offer substantive explanations and comments, and communicate with their peers. In addition, the study demonstrates that the selection of language may be influenced by factors such as the dominant language of the child and the language of instruction.

Note: I would like to thank Roberto Guzman for his careful work as a research assistant in this study.

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ANALYZING EFFECTIVE TEACHING OF HISPANIC STUDENTS' PROBLEM-SOLVING STRATEGIES IN SPANISH

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Hersholt C. Waxman

Abstract

This study investigates (a) the cognitive strategies that Hispanic students report using during science problem solving; (b) students' perceptions of cognitive strategy instruction for science; and (c) the relation between students' perceptions of strategy instruction and their cognitive strategy use in science. Approximately 100 Hispanic elementary students were asked to work critical thinking science tasks and then to respond to a series of questions designed to investigate the strategies they used to solve the science problems and their perceptions to specific and generic instructional behaviors related to strategy use. Results revealed that students are not using many effective strategies for science problem solving and they do not perceive a great deal of science strategy instruction. When they do perceive specific strategy instruction, they respond by using the suggested strategies. On the other hand, generic teacher behaviors show little direct relationship to student strategy use in science.

INTRODUCTION

Recently, the development of students' formal reasoning ability has been an important focus of concern in the area of science (Champagne and Klopfer, 1984; Garnett and Tobin, 1984; Larkin, 1979; Lawson, 1982; Yeany, Yap, and Padilla, 1986). Students need the ability to reason so that they can apply the knowledge they already have acquired to new situations that they may encounter (Good & Smith, 1987). Although several educators have emphasized the need to modify objectives, content, and teaching methods according to students' level of cognitive reasoning (Chiappetta, 1976; Lawson & Renner, 1975; Shayer, 1978), further research on the use of students' cognitive strategies needs to be conducted before they are recommended for use in the classroom. Investigation of the cognitive strategies that students currently use is a necessary first step toward the achievement of this goal.

Several recent studies have identified and described students' cognitive strategies in some content areas (Weinstein & Mayer, 1986), but few studies have examined the specific cognitive strategies used by Hispanic elementary school students in science. It is important to specifically examine the strategies that Hispanic students use since they generally achieve at lower levels in science than other racial and ethnic groups (Rakow, 1985; Rakow & Walker, 1985). In addition, it cannot be assumed that all students process information in the same manner because there may be strategies that are culture specific (Padron, 1985).

For example, Padron (1985) found that Hispanic students classified as bilingual reported using the same type of reading comprehension strategies that have been identified by previous research with English-monolingual students. The strategies that were cited most often, however, have been identified as simple and passive reading strategies. When compared to reading strategies use by Hispanic English-monolingual students, Hispanic bilingual students reported using significantly fewer strategies than their monolingual counterparts. Perhaps language code-switching strategies interfered with the use of cognitive reading strategies. Furthermore, both groups may have relied on more cooperative strategies, due to cultural preferences, which were not investigated in the study. Therefore, we need to specifically understand how Hispanic students think in general, approach a learning task, process and retain information, and most efficiently solve higher cognitive level thinking science problems or tasks. We also need to know how individual students differ in performing many of these cognitive tasks (Linn, 1984, 1987; Ronning, McCurdy, & Ballinger, 1984).

In the past 15 years, considerable effort has been devoted to research studies investigating the link between teacher behaviors and student achievement (Brophy, 1979; Rosenshine, 1979; Rosenshine & Stevens, 1986). Few studies, however, have been conducted to identify, measure, and delineate those teacher behaviors and classroom processes that influence the development of higher-level thinking skills such as reasoning and problem solving (Grouws, 1985; Knight, 1987; Knight & Waxman, 1987; Stallings, 1984).

Many educational theorists and researchers have assumed that the teaching behaviors identified for basic skills achievement can be applied with varying modifications, to the teaching of cognitive strategy use (Hansen & Pearson, 1983; Johnston, 1985; Peterson & Swing, 1982). Knight (1987), however, found that students' use of problem-solving strategies in mathematics generally relates to the direct teaching of specific strategies or to the combined effects of specific strategies with generic behaviors, rather than to generic behaviors alone. In other words, generic teaching behaviors that have been found in previous studies to be related to student achievement on standardized tests of basic skills (Brophy & Good, 1986) do not significantly predict student strategy use unless they are combined with specific instruction in strategy use.

Recent research has also begun to examine the critical role that students' perceptions of classroom instruction play in teaching and influencing student achievement (Wittrock, 1986). This research assumes that better understanding and improvement of teaching can emerge by knowing the effects upon the students' thought processes that mediate achievement. Students are viewed as active interpreters or mediators of teacher behaviors instead of passive recipients of informational input (Weinstein & Underwood, 1982, 1985; Wittrock, 1978, 1986). This suggests that instruction experienced by the student may be different from the intended instruction. Therefore, it is of great importance for us to understand students' perceptions of the classroom instruction they receive and how these perceptions affect their cognitive strategy use.

Student responses on self-report instruments have been found to be realistic and reliable measures of their classroom environment. Students' judgments about their teachers' behaviors have been found to agree significantly with the judgments of experienced classroom observers, and the use of student ratings as predictors of the general effectiveness of teachers have yielded slightly stronger results than observer ratings. Studies which compare teachers', students', and classroom observers' reports of classroom processes have found that students and classroom observers were in general agreement, although students' and observers' reports did not correspond very closely to teachers' reports (Waxman, 1984). Student perceptions have also been very useful in helping educators understand classroom processes as well as provide feedback to classroom teachers (Fraser, 1986; Walberg, 1976).

Although a few studies have successfully used student self-report instruments to identify the cognitive reading strategies used by students (Hahn, 1984; Paris & Myers, 1981), very few studies have used self-report instruments to assess students' problem-solving strategies in science (Knight, 1987; Waxman, 1987). Student self-report instruments have been used to assess teachers' instruction and classroom processes (Fraser, 1986), but they have not been specifically used to assess problem-solving instruction. It may be especially important to use student perceptions to assess problem-solving instruction because the relatively time consuming and expensive classroom observations for this purpose may not reveal the desired behaviors unless teachers are explicitly requested to provide specific demonstrations of problem-solving lessons (Grouws, 1985). Furthermore, observations have often been ineffective in identifying mental events or patterns of communication that are not easily observable (Stewner-Manzanares, 1984; O'Malley, Chamot, Stewner-Manzanares, Kupper, & Russo, 1985).

The objective of the present study is to investigate students' perceptions of their science teacher's cognitive strategy instruction and other classroom processes in order to determine the extent to which they affect student use. More specifically, this study addresses the following four research questions: (1) What are the problem-solving strategies that students report using during critical thinking science tasks?, (2) What are students' perception of strategy instruction during science?, (3) Are there significant differences by grade, gender, and ability on the cognitive strategies students report using?, and (4) What are the relationships between students' reported problem-solving strategies and students' perceptions of strategy instruction and classroom processes?

METHODOLOGY

Subjects

The subjects in the present study were 104 third, fourth, and fifth grade Hispanic students from an urban, elementary public school located in a major urban metropolitan area in the southwest. The distribution by sex included 61 males and 43 females. There were 30 third graders, 38 fourth graders, and 36 fifth graders. Approximately six to eight students from each of the 12 classes were randomly selected to be included in the study. The elementary school was chosen to be included in the study because this school exemplified the demographic, socioeconomic, and achievement characteristics typical of predominantly Hispanic elementary schools in the central cities as described by Borman and Spring (1984). In this case, students were drawn from a neighborhood consisting primarily of low-income families of Hispanic origin. Results of basic skills achievement tests place students on or below grade level in reading and mathematics with achievement gains evident over the past five years. Although there were several non-English speaking students in these classes, they were not considered to be part of the sample population. Students were also categorized into three ability groups based upon their score on the science problem-solving task they were given. Twenty-five students were categorized as low-ability students, 25 as high-ability students, and 54 as average-ability students.

Procedures

Students were administered the Science Strategies Survey (SSS) (Knight & Waxman, 1986) in small groups of 5-6 students which were randomly selected from the class rosters of third, fourth, and fifth grade ESL classrooms. Students were informed that the science task and survey questions were designed to find out what students do or think in order to help them solve science problems. Before completing the survey, students worked a critical thinking science task which was selected from a series of critical thinking activities developed for the Silver Burdett Science Textbook Series. Afterwards, they responded to a series of questions designed to investigate the cognitive strategies they used to solve the problems and their perceptions of the teacher behaviors related to strategy use. The survey was read aloud to students so that reading or language proficiency would not interfere with the students' ability to respond to the questions.

The SSS contained questions about the use of 12 specific cognitive strategies that have been identified by previous research and theoretical literature. Some of the strategies have been identified as "strong" strategies or strategies that enhance students' higher-level thinking, while others were identified as "weak" strategies or strategies that have not been related to higher-level thinking (Knight, 1987). The following set of strategies have been identified by previous research and theoretical literature as being successful:

(a) Placing information into different categories
(b) Having a picture of the problem in mind
(c) Thinking about a similar problem done before
(d) Brainstorming
(e) Putting oneself into the situation of the problem
(f) Looking for a pattern
(g) Making a table or chart
(h) Making an organized list
(i) Working backwards.

Strategies which have not been associated with successful higher-level thinking or have not been examined systematically to determine their relationship to higher-level thinking include the following (Knight, 1987):

(a) Writing down the important things,
(b) Making a guess, and
(c) Asking a friend for help.

Students indicated the extent to which they engaged in the use of these strategies on a four-point Likert-type scale that ranged from all of the time to none of the time.

The SSS also contains questions about students' perceptions of two types of instructional behaviors related to science strategy instruction. Students were asked to indicate the existence and extent of specific instruction by their science teacher in the 12 strategies previously described. In addition, students were asked to indicate the existence and extent of certain generic teacher behaviors and classroom processes identified through examination of the teacher effectiveness research (see e.g., Brophy & Good, 1986; Rosenshine & Stevens, 1986). These items were grouped into the following scales:

1. Pacing: the instructional pacing and difficulty level of science instruction.
2. Feedback: feedback given to students by teachers about the accuracy of their science work.
3. Emphasis on Process: an emphasis on the solution process in working science problems as opposed to merely an emphasis on obtaining the correct answer.
4. Tolerance for Divergent Solution Processes: teacher acceptance of different approaches to solving science problems.
5. Modelling: teacher demonstration of processes involved in sample science problems.
6. Peer Cooperation: cooperative work among students during science problem-solving activities.
7. Grouping Arrangements: use of varied grouping arrangements (small groups and individual instruction) as opposed to instruction only directed to the class as a whole.
8. Instructional Materials: teacher use of teacher-generated or other materials as the primary source of students' work opposed to the use of the textbook.

Students responded to the items investigating their perceptions of instructional behaviors, as with previous items, by marking either always, most of the time, sometimes, or never. The SSS has been found to be reliable and valid in other studies and the internal consistency of the survey is .80 (Knight & Waxman, 1986).

Descriptive statistics were calculated for all the student strategy and instructional behavior variables. Multivariate analysis of variance (MANOVA) was used to investigate differences in reported strategy use by grade level, gender, and ability. Canonical correlation analysis was used to determine the maximum correlation possible between students' perception of instructional behaviors and their perceptions of strategy use during science problem solving.

RESULTS

Table 1 reports the means and standard deviations of students' perceptions of the strategies they used. The most frequently cited strategy used by students was Writing down the important things. This strategy has been identified as a weak cognitive strategy because young or low-achieving students often lack the skill to identify the important cognitive information in a problem (Knight, 1987). The least cited problem-solving strategy was Working backwards or starting at the end of each problem. This goal directed strategy has been identified as a strong strategy by previous research (Knight, 1987).

Table 1
Means and Standard Deviations of Hispanic Elementary School Students' Problem-Solving Strategies in Science.

Strategy	M	SD
Writing down the important things	2.9	.88
Having a picture of the problem in my mind	2.5	.81
Brainstorming (coming up with many ideas or answers)	2.5	.82
Trying to recall a similar problem done before	2.4	.81
Putting oneself into the situation of the problem	2.4	.78
Making a guess and then continuing	2.3	.77
Looking for a pattern	2.2	.96
Placing information into different categories	2.2	.77
Asking a friend how to answer	2.1	.78
Making a table or chart	2.1	.86
Making an organized list	2.0	.77
Working backwards (starting at the end of the problem)	1.6	.78

Note:
A score of 4 indicates that the student perceived using the strategy all of time. A score of 1 indicates that the student perceived using the strategy none of the time.

It should be pointed out that the means reveal that students are reporting that they are not using these strategies to a great extent. The standard deviations are large for many of the strategies too, suggesting that there is a great deal of variance in the extent to which students report using the strategies.

A 3 (Grade) X 2 (Gender) X 3 (Ability) (MANOVA) was employed, using the 12 student-reported science strategies as the dependent variables. The MANOVA results revealed an overall significant difference among grades (multivariate F(24,146) = 2.02, p<.01) and a significant grade by gender interaction (multivariate F(24,146) = 1.62, p<.05). There were no overall significant differences between male and female students (multivariate F(12,73) = 1.46, p<.05) and among ability groups (multivariate F(24,146) = .72, p<.05). There were also no other significant interactions among the variables.

Follow-up univariate tests and Duncan post hoc tests revealed that the significant grade by gender interaction occurred for the strategy of Asking a friend for help. Third grade female students reported asking a friend for help significantly more than third grade males. Overall, however, third graders reported using this strategy significantly less than fourth graders.

Previous studies investigating strategy use by Hispanic students in other content areas have reported differences by gender, grade, and ability (Knight & Padron, 1988). In general, students in higher grades and higher-ability students report using significantly more strategies classified as strong by previous research than younger lower ability students. Furthermore, females report using significantly more comprehension strategies than males during reading. Results of the present study for science strategies, however, do not provide easily interpretable patterns. Differences among grades may perhaps be attributed to differences in instruction, rather than age-related differences.

Table 2 includes the means and standard deviations for students' perceptions of the two categories of instructional behaviors: (1) Specific Instruction in Science Strategies and (2) Generic Instructional Behaviors. Students most frequently perceived specific instruction in the strategies of Writing down the important things (M=2.76; SD=.89) and Having a picture of the problem in mind (M=2.55; SD=.88). Students mentioned instruction in Asking a friend how to answer (M=1.98; SD=.79) and Working backwards (M=1.52; SD=.74) least often. In general, the means for students' perceptions of the Specific Instruction in Science Strategies are low, while the standard deviations are large.

The most frequently reported generic instructional behaviors were Modeling (M=3.28; SD=.92) and Feedback (M=3.02; SD=.71). The least frequently reported generic teacher behaviors included Grouping Arrangements (other than whole class instruction) (M=1.58; SD=.66) and Tolerance for Divergent Solutions (M=1.78; SD=.78). Standard deviations, while not as great as for the Specific Strategy Instruction category, nevertheless exhibited variability in students' perceptions.

Table 3 reveals that the canonical analysis produced four statistically significant canonical correlation coefficients with magnitudes of .82, .78, .75 (p<.001) and .73 (p<.01), respectively. The instructional behaviors relevant to the first canonical variate include Specific Strategy Instruction in Looking for a pattern (positively related) and Specific Strategy Instruction in Asking a friend how to answer (negatively related). No generic instructional behaviors met the .35 inclusion level for this study. Relevant student strategies for the first canonical variate were Looking for a pattern (positively related) and Asking a friend how to answer (negatively related). Students appear to be responding to specific instruction in strategies with the use of the strategy they perceived being taught by the teacher.

Table 2

Means and Standard Deviations of Hispanic Elementary Students' Perceptions of Strategy and Generic Instruction in Science.

Instructional Behaviors	M	SD
Strategy Instruction:		
Writing down the important things	2.76	.89
Having a picture of the problem in mind	2.55	.88
Brainstorming	2.38	.95
Putting oneself into the situation of the problem	2.34	.78
Trying to recall a similar problem done before	2.33	.79
Placing information into different categories	2.27	.75
Making a guess and then continuing	2.17	.94
Looking for a pattern	2.12	.83
Making a table or chart	2.07	.78
Making an organized list	2.06	.79
Asking a friend how to answer	1.98	.79
Working backwards (starting at the end of the problem)	1.52	.74
Generic Instruction:		
Modelling	3.28	.92
Feedback	3.02	.71
Emphasis on Process	2.34	.44
Instructional Materials	2.19	.58
Peer Cooperation	2.12	.67
Pacing	2.02	.43
Tolerance for Divergent Solutions	1.78	.78
Grouping Arrangements	1.58	.66

Note: A score of 4 indicates that the student perceived the instructional behavior was prevalent all of time. A score of 1 indicates that the student perceived that the instructional behavior was never present.

Table 3

Standardized Canonical Correlations for Hispanic Elementary Students' Science Strategies and Perceptions of Strategy and Generic Instruction.

	Canonical Variates			
	I	II	III	IV
Student Strategies:				
Making an organized list	-.08	.23	-.33	.35
Trying to recall a similar problem	.46	-.17	.53	-.11
Looking for a pattern things	.46	-.18	.21	-.78
Writing down the important	-.02	.12	.39	.16
Making a guess and then continuing	.06	.48	-.17	-.24
Asking a friend how to answer	-.55	.47	.14	-.39
Brainstorming	-.04	-.17	-.39	.01
Working backward	.11	.26	-.31	-.06
Making a table or chart	.30	.07	-.05	.00
Having a picture of the problem in mind	-.03	.56	-.01	.54
Placing information into different categories	.19	.19	-.25	-.04
Putting oneself into the situation of the problem	.15	-.35	-.07	-.05
Instructional Behaviors:				
Specific Instruction in:				
Making an organized list	.18	.43	-.18	.31
Trying to recall a similar problem	.12	-.06	-.16	.29
Looking for a pattern	.59	-.21	.22	-.61
Writing down the important things	-.30	.09	.35	.13
Making a guess and then continuing	.07	.13	-.48	-.01
Asking a friend how to answer	-.47	.64	.24	-.38
Brainstorming	-.07	-.18	-.12	-.07
Working backward	.29	-.04	-.22	.02
Making a table or chart	.06	.26	-.07	-.05
Having a picture of the problem in mind	-.02	.51	.12	.28
Placing information into different categories	.21	.02	-.12	.12

Putting oneself into the situation of the problem.	.16	-.21	.06	-.04
Generic Instructional Behaviors:				
Peer Cooperation	.12	-.24	-.10	.17
Grouping Arrangements	-.07	.10	-.27	-.12
Instructional Materials	.16	.19	.10	.30
Pacing	-.05	.02	.05	-.03
Feedback	.34	.07	.10	-.33
Modeling	.04	-.20	.33	.22
Emphasis on Process	-.25	.10	-.05	.22
Tolerance for Divergent Solutions	-.16	.01	.06	-.24
Canonical *r*	.82	.78	.75	.73

Note: The first three Canonical Correlations are significant at the $p<.001$ level; the fourth is significant at $p<.01$.

The second canonical variate receives its heaviest contributions from Specific Instruction of (a) Making an organized list, (b) Asking a friend how to answer, and (c) Having a picture of the problem in mind (all positively related). No generic instructional behaviors were related to this variate. The instructional behaviors associated with the three teacher behaviors were (a) Making a guess and then continuing, (b) Asking a friend how to answer, (c) Having a picture of the problem in mind (all positively related) and (d) Putting oneself into the situation of the problem (negatively related). Students responded to teacher instruction with use of the strategies taught but added use of the weak strategy of guessing. Perhaps perceived instruction in seeking the answer from an external source cued them to use strategies which required more superficial processing of the problem information.

The teacher behaviors related to the third variate were Specific Instruction in Writing down important information (positive relationship) and Specific Instruction in Making a guess and then continuing (negative relationship). Once again, no generic behaviors related to student strategy use. Students responded with use of Writing down the important things and Trying to recall a similar problem (positive) done before and avoidance of Brainstorming (negative). In this case, students responded to teacher instruction with the strategy suggested and added also a strategy which may have been cued by teacher instruction, although not directly taught.

The last canonical variate included specific instruction of Looking for a pattern and Asking a friend how to answer (negative relationship) and the student strategies of Having a picture of the problem in mind (positive), Making an organized list (positive), Looking for a pattern (negative) and Asking a friend how to answer (negative). As in the previous three variates, no generic teacher behaviors were related.

DISCUSSION

The results of the present study indicate that Hispanic students are not using the strategies identified in this study to a great extent nor do they perceive a great deal of instruction in the strategies. This finding is consistent with the results of previous studies which investigated Hispanic students' reported strategy use and perceptions of strategy instruction in other content areas (Knight & Padron, 1988). Further research needs to be conducted to determine if Hispanic students are using other culturally specific strategies not identified in the present study and, if so, to investigate the relationship between these strategies and student achievement in science. The use of culturally specific strategies might interfere with acquisition and use of other effective problem-solving strategies for science. In other studies, interference between existing strategies and those introduced by direct instruction has been suggested as an explanation for the mixed findings in strategy instruction (Holley & Dansereau, 1984; Winne & Marx 1980).

On the other hand, the results from the canonical correlation analysis in the present study suggest that when students do perceive specific instruction in strategies, they respond with the use of the perceived strategies as well as with the use of additional strategies that may be cued by instructional behaviors. Although students frequently observe the generic teacher behaviors identified by previous teacher effectiveness research (i.e., modeling, feedback, pacing, etc.), these behaviors exhibit little direct relationship to science problem solving. These two findings suggest that the classroom teacher may be able to aid Hispanic students in the acquisition and use of successful strategies for science problem solving through specific instruction in strategies. The teacher, however, must first be aware of successful strategies in science and how they can best be used. Furthermore, the teacher must also be aware of possible cultural differences in strategy use.

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EXAMINING THE COGNITIVE READING STRATEGIES USED BY HISPANIC ELEMENTARY STUDENTS WHILE READING SPANISH TEXT

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Abstract

This study examined: (a) the cognitive reading strategies that second-grade-bilingual students use while reading Spanish text and (b) whether these strategies differ from those used in reading English text. Students read a passage from an informal reading inventory at predetermined points to describe the strategies that they were using to comprehend the material. This procedure was used for the reading of the Spanish and English text. There was a two-week interval between the first and the second reading. The results inidicate that students' reported use of strategies differ by language of text. These findings are discussed in terms of implications for reading instruction and the development of higher-level thinking skills.

INTRODUCTION

It has not been until recently that research has provided some guidelines for making decisions about teaching reading in Spanish. The studies examining Spanish reading have generally focused on miscue analysis (see, e.g. De Silva, 1983). Little research has examined the cognitive processes that Spanish-speaking students use in comprehending Spanish text. This type of research can help in understanding the reading process in Spanish and thereby provide practical and effective teaching strategies.

An area of research that has implications for the language minority students is that of information processing. That is, understanding the underlying cognitive process involved in learning. This perspective suggests that the intermediate steps of thought processes can be traced and subsequently taught (Ruggiero, 1988). Learning is viewed as an active process while teaching is a means of facilitating active student mental processing (Gange, 1985).

Using this information processing perspective, researchers have begun to identify the cognitive strategies used by students (Alvermann, 1984; Alvermann & Phelps, 1983; Chou Hare & Smith, 1982; Padron, Knight, & Waxman, 1986). Several studies, for example, have identified specific cognitive strategies that are used by monolingual English-speaking students (Alvermann, 1984; Alvermann & Phelps, 1983; Chou Hare & Smith, 1982) and by bilingual students reading English text (Knight, Padron, & Waxman, 1985; Padron, 1985; Padron, Knight, & Waxman, 1986). Little research, however, has focused on identifying the cognitive reading strategies that Spanish-speaking bilingual students use to obtain meaning from printed materials written in their first language (Padron, 1985a; 1985b). Furthermore, research has not compared the strategies used by bilingual students while reading materials in their two languages. That is, researchers have not investigated whether students, who are bilingual use the same cognitive strategies when reading in their first language (i.e., Spanish) as when reading in their second language (i.e., English). Knowledge about these strategies can provide: (1) systematic procedures for teaching and (2) instructional methods to help perform certain reading behaviors (Cook & Mayer, 1983).

Purpose of the Study

The purposes of the present study were to: (a) identify the cognitive reading strategies that second-grade students who are enrolled in bilingual programs (i.e., dominant in Spanish), use while reading Spanish text and (b) determine whether there are significant differences in the type and number of strategies cited by students while reading in their first and second language.

Review of the Literature

Until the last decade or so, most cognitive studies focused on acquiring knowledge about cognition rather than on how to use the findings in the classroom situation (Mier, 1984). The research in the use of cognitive strategies has indicated that knowledge of strategies used during reading affects how the reader approaches reading (Baker & Brown, 1984b; Forrest-Pressley & Gillies, 1983; Palincsar & Brown, 1985) and gives the student a better understanding of the reading process which may enhance reading achievement (Saracho, 1983). In addition, understanding the cognitive strategies that students use during reading helps teachers adapt instruction to the needs of students (Armbruster & Brown, 1984; Baker & Brown, 1984a; Johnston & Byrd, 1983; Palincsar & Brown, 1984). This type of research offers teachers practical strategies for improving students' reading comprehension (Padron, 1985b).

Several studies have identified specific cognitive strategies that are used by monolingual English-speaking students (Alvermann, 1984; Alvermann & Phelps, 1983; Chou Hare & Smith, 1982), and second language students at the elementary and secondary school level to obtain meaning from printed materials written in English (Block, 1986; Padron, 1985b; Padron, Knight, & Waxman, 1986). Two studies, one with elementary students (Padron, Knight, & Waxman, 1986) and another with college students (Block, 1986) have compared the strategies used by bilingual and by English-monolingual students. In the study conducted by Padron, Knight, and Waxman (1986), 38 elementary school students were interviewed using think-aloud protocols. Twenty-three were bilingual (i.e., Spanish/English) and 15 were English monolinguals. The results indicated that, although bilingual and monolingual students used the same types of strategies, they did not use the same number of strategies while reading English text. Monolingual students indicated using approximately twice as many strategies as bilingual students in reading text written in English.

In a study conducted by Block (1986), the comprehension strategies used by English as a second language (ESL) college students who were considered poor readers were compared with those of native speakers who were also poor readers. Students were interviewed using think-aloud protocols. Three were native Spanish speakers and three were native Chinese speakers enrolled in an ESL reading class. Three other students were native English-speaking students also enrolled in reading classes. The results of the study indicated that strategies cited did not differ by the language background of the student.

In addition, studies with English monolingual students have generally found that young children have very little understanding of the nature of the reading process. Some young children, for example, have been found to perceive reading as an oral activity rather than a cognitive process (see e.g., Tovey, 1976). In a study investigating elementary students' perceptions of their reading process, Myers and Paris (1978) found that young children were unaware of comprehension strategies when they experienced comprehension difficulties.

Mature readers, on the other hand, are better able to use a variety of strategies (Gibson, 1972; Palincsar & Brown, 1984), which range from rereading to more elaborate strategies (Padron, 1985b; Palincsar & Brown, 1984). The use of elaborate strategies (i.e., strategies that require deeper processing), however, is difficult for young and low ability readers (Brown, Armbruster, & Baker, 1983; Brown & Campione, 1981; Brown & Palincsar, 1982). Thus, these studies indicate that the tendency to adjust one's reading strategy to fit the purpose does vary across reading levels (Ryan, 1981) and age (Forrest-Pressley & Gillies, 1983).

To summarize, studies have found that bilingual students use the same types of strategies as English monolinguals (Block, 1986; Padron, Knight, & Waxman, 1986). The frequency in the use of the strategies and the total number of strategies reported by bilingual and monolingual English-speaking students, however, differ (Padron, Knight, & Waxman, 1986). Furthermore, studies have found that older and better readers utilize a greater number of strategies and are better able to monitor those strategies (Brown & Smiley, 1978; Forrest-Pressley & Gillies, 1983); Kavale & Schreiner, 1979; Myers & Paris, 1978).

It is important to consider differences in the use of strategies by bilingual students, since previous work has indicated that not all students process text in the same manner (Spiro, 1980). In terms of classroom instruction, this means that what may be effective instructional procedures in remediating the problems of some students may be ineffective for others. Research, therefore, needs to investigate individual differences in the use of cognitive reading strategies so that more effective instructional procedures can be developed.

Subjects

Forty second-grade Hispanic-bilingual students ranging from eight to ten years of age were the participants in the present study. All students were from an urban school located in the southwest region of the United States. The distribution by gender was as follows: 14 boys and 26 girls. All students were enrolled in bilingual (Spanish/English) programs. The amount of Spanish reading instruction was assessed through students' self-reports. This data indicated that the amount of Spanish instruction that students in this study received each week ranged from instruction in Spanish only the first six weeks of school for 45% of the students to no Spanish reading instruction for 16% of the students.

Structured Interview

An interview form adapted from other reading studies was employed to determine what strategies students used (Alvermann, 1984; Chou Hare & Smith, 1982; Padron, Knight, & Waxman, 1986). The interview was adapted to include several strategies which were identified during a pilot study (see, Padron, 1985b). Questions, for example, were included to determine students' use of their native language while reading in English. The same interview was used in Spanish and English. The interview was translated from Spanish to English by one researcher, then another researcher transcribed the interviews from Spanish to English. This would assure the accuracy of the translation. The strategies were categorized according to the number of times that student stated a particular strategy and the type of strategy stated (Chou Hare & Smith, 1982; Padron, Knight, & Waxman, 1986).

Each student was individually interviewed for approximately 30 minutes. The sample was randomly divided so that half the students were interviewed first in English and the other half was interviewed first in Spanish. There was a two-week interval between the first interview and the second interview. All students were interviewed by trained bilingual interviewers.

The procedures followed were the same for both the English and the Spanish interview. However, there was only one difference in the English interview, students were allowed to answer in Spanish if they wished. This would insure that language proficiency would not interfere with the production of strategies. Students read a passage from informal reading inventories. They were to stop at predetermined points and describe the strategies that they were using to comprehend the material.

Materials

The reading materials used in the present study consisted of passages from two informal reading inventories (IRIs). These passages were narratives that described a story. IRIs were used to assure that students had not read the stories. In addition, IRIs are written so that they are interesting for students reading at any level. Therefore, it provided material at the appropriate reading level. Two inventories were used: (a) the Ekwall Reading Inventory for the English interview and (b) The Economy Series Informal Reading Inventory (Spanish version) for the Spanish interview.

The San Diego Quick Assessment, a graded word list, was used to determine the appropriate level of the passage that the student was to read in English. In the Spanish IRI, a word list is also included and was used to determine the level at which the student was to read the passage.

After administering the word list, students read silently the appropriate passage stopping at the premarked intervals to describe the content of the story and what they were doing and thinking as they read the story to help them with comprehension. After having read the passage, a number of probing questions were asked to determine if there were other strategies used in reading the particular passage (Chou Hare & Smith, 1982; Padron, Knight, & Waxman, 1986). This same procedure was followed with the second passage two weeks later in the other language.

The strategies were coded as continuous variables since the actual number of times each strategy could have been mentioned by individual students could be very large. Consequently, means and standard deviations were calculated for each strategy. In addition, *t* -tests for correlated samples were employed to examine if there were significant differences between the strategies students mentioned in Spanish and those mentioned in English.

RESULTS

Table 1 reports the overall means, standard deviations, and *t* -values from *t* -tests which compared the strategies students reported using by language. The mean values listed for the strategies indicate the average number of times that students stated a particular strategy during the interview.

The results indicate that there are several cognitive reading strategies reported (see Table 2). There were four cognitive reading strategies that second graders reported using in reading Spanish text. The cognitive strategies cited by students while reading in Spanish were: (a) Rereading, (b) Imaging, (c) Changing Speed, and (d) Concentrating. On the other hand, there were seven cognitive reading strategies that students reported using to comprehend English text. The cognitive strategies cited by students while reading in English text were: (a) Rereading, (b) Imaging, (c) Changing Speed, (d) Concentrating, (e) Translating Words to the Other Language, (f) Self-generated Questions, and (g) Student's Perceptions of Teacher's Expectations.

In addition, students also cited a number of other strategies which were rather passive. In Spanish, the strategies mentioned were: (a) paying attention; (b) being quiet; (c) taping the story; (d) drawing a picture of the story; (e) looking at words, and (f) knowing the meaning of words. In reading the English text these included: (a) listening; (b) listening to the teacher; (c) not talking to friends, (d) looking at words, (e) reading, and (f) practicing.

Strategies cited in aiding comprehension of Spanish text included: (1) Concentrating (M = .76; SD = .75); (2) Other Strategies (M = .35; SD = .66); (3) Rereading (M = .15; SD = .36); (4) Imaging (M = .10; SD = .29); and (5) Changing Speed (M = .06; SD = .24). During the reading of the English text, the strategies most often cited by the students were: (1) Other Strategies (M = .35; SD = .70); (2) Concentrating (M = .28; SD = .51) and (3) Rereading (M = .10; SD = .38). These were followed by Imaging (M = .05; SD = .22), Changing Speed (M = .05; SD = .22) and Self-Generated Questions (M = .05; SD = .22) which were cited equally as often. The only other strategies cited during the reading of English text was Translating to Spanish (M = .03; SD = .16) and Students' Perceptions of Teacher's Expectations (M = .03; SD = .16).

Although students cited a greater variety of strategies in English than in Spanish, the frequency of strategy use was greater in Spanish than in English. The difference in frequency of strategy use, however, was statistically significant ($t = 3.29$, $p < .01$) only for one strategy. Concentrating was cited more often in Spanish (M = .76; SD = .75) than English (M = .28; SD = .51). There were no other significant differences found in the type of strategies reported while reading Spanish and English text.

Table 1
Cognitive Reading Strategies by Language of Text

	Spanish		**English**		
Cognitive Strategies	M	SD	M	SD	*t*
Rereading	.15	.36	.10	.38	
Imaging	.10	.29	.05	.22	
Changing Speed	.06	.24	.05	.22	
Concentrating	.76	.75	.28	.51	3.29**
Translating	.00	.00	.03	.16	
Self-generated Questions	.00	.00	.05	.22	
Student's Perceptions of Teacher's Expectations	.00	.00	.03	.16	
Other	.35	.66	.35	.70	

**p < .01

Table 2
Cognitive Reading Strategies Used by Bilingual Students in Reading Spanish and English Text

Strategy	Description
Rereading:	reading or skimming the passage again
Imaging:	having a mental picture of the passage events or detail
Changing Speed:	reading the story more carefully or slowly
Concentrating:	thinking about what is being read
Translating Words to the Other Language:	translating to the other language in order to better comprehend the text
Self-generated Questions:	asking a question of a questioning comment about the story
Student's Perceptions of Teacher's Expectations:	Reading to be able to give the teacher the answer

DISCUSSION

The findings from this study indicate that second graders who are enrolled in bilingual programs are using more cognitive strategies in English than in Spanish. Although a greater variety of strategies were used in English than in Spanish, the strategies were used less frequently in English than in Spanish. As a matter of fact, the use of all strategies is very small. In addition, the types of strategies that were used most often are not associated with successful reading comprehension (Knight & Padron, 1988). Furthermore, the amount of Spanish instruction is very limited according to students' self-reports.

The present study has a number of implications for the teaching of Spanish reading. First, there were three additional strategies cited in English that were not cited in Spanish. The three strategies in English, however, are seldom used by students. In addition, two of the strategies may be related to the students' proficiency in Spanish and their cognitive style. Students may be more comfortable with their native language rather than English. This may suggest why students translate to Spanish when reading in English, yet the reverse does not occur. Also the strategy Student's Perceptions of Teacher's Expectations may have been a strategy used by the students due to their learning style (Padron, 1985b). The use of this strategy is consistent with Ramirez and Castaneda's

(1974) work on cognitive style where they found that Mexican American children from traditional homes may be more field sensitive. One characteristic of this learning style is a sensitivity to the teacher's desires and preferences for learning by modeling and imitation. It is interesting that a higher-level type strategy, Self-Generated Questions, appears in English reading, but not in Spanish. The use of all these strategy, nonetheless, is almost negligible.

Secondly, the present investigation suggests that the instruction of cognitive reading strategies should take place in the early stages of the reading process. Second grade students cited few strategies in both Spanish and English reading. Early instruction would assure that students develop appropriate thinking skills that will aid in the development of higher-level cognitive reading strategies. Postponing this instruction means that children may develop habits which will make instruction difficult (Wolf, King, & Huck, 1968). In addition, many of the strategies cited have not been associated with successful reading comprehension (Knight & Padron, 1988). These include Rereading, Changing Speed, and Concentrating. That is, these strategies require little action on the part of the learner. Considering the interactive nature of reading (Ada, 1987), readers must engage in the use of active strategies to have better recall of text (Armbruster & Brown, 1984). The use of these strategies may be contributing to ineffective comprehension.

Thirdly, there appears to still exist some misconceptions about Spanish reading which may be contributing to the inappropriate teaching of Spanish reading. Although Spanish reading is good to teach because of the cultural ties it develops, sometimes it is perceived that it is more important to learn to speak and read English. According to students' self-report, only eight percent of the students were receiving Spanish reading instruction every day. The lower number of cognitive reading strategies used in Spanish reading may be due to the lack of instruction. It is important that students receive instruction in Spanish reading so that it may contribute to the development of higher-level strategies by allowing students to establish a well-defined understanding of the reading process which is not hindered by a lack of language proficiency. The student's understanding of the demands of the reading process may contribute to more effective reading skills in English.

This approach to Spanish reading instruction is consistent with theories presented by Cummins (1981) which explain the transferability of academic skills from one language to another. Thus, the instruction of Spanish reading is not harmful to students' academic development, since once the strategies involved in the reading process have been learned they are transferable to English reading. Therefore, if instruction in English reading is delayed, students can solidify their reading skills in Spanish and develop important cognitive strategies before attempting to read a new code of symbols. Otherwise students may not ever acquire critical thinking skills in either language. Spanish reading instruction would assure greater transfer of reading skills as long as students are made aware of the generalizability of the strategies. Students would subsequently acquire better English reading skills which would in turn result in better comprehension.

In conclusion, the above considerations should be addressed so that reading programs can be developed which meet the cognitive needs of bilingual students. In addition, research which can be put into practice must be conducted so that inequities in the education of linguistically different students can be eliminated.

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EVALUATING THE EFFECTIVENESS OF WRITING ON THE COMPREHENSION AND RETENTION OF CONTENT READING IN BILINGUAL STUDENTS

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Abstract

The following article describes a series of studies designed to investigate the effects of integrating writing, reading, and thinking activities for ESL students. These studies point out that merely incorporating a writing activity does not improve the comprehension and retention of content area material. However, when writing is preceded by strategy instruction, comprehension of material is greatly enhanced.

Research in developing literacy skills in English as a second language (ESL) is particularly critical in light of three significant national trends: (1) demographic changes; (2) low minority student achievement in literacy, math, and science; and (3) school drop-out levels. According to the 1980 Census, over 16 million Americans speak a language other than English at home. This fact, coupled with significant growth rates (e.g., the Hispanic population alone showed a 61% growth over the last decade), presents an imminent challenge for the school system.

At present, this challenge is not being met successfully as national statistics show that the limited English proficient (LEP) learners are scoring below the national norm in science, math, vocabulary, reading, and civics (Average Achievement Test Scales, 1982). The inability to master the language medium of the classroom is partly responsible for this lack of success which feeds directly into inflationary drop-out rates (see e.g. Valverde, 1984). The Hispanic Policy Development Project (1984) reports that 45% of Hispanics leave school before the tenth grade. This statistic is an obvious indication that the current educational system has failed to meet the needs of the Hispanic population.

Considering the need for literacy skills to succeed in our highly technological and scientific society, more research needs to be done in the area of language and literacy development for the second language learner. Cognitive strategies designed specifically to enhance literacy skills of ESL learners need to be developed.

Cognitive approaches to learning stress that learning is an active, constructive, and goal-oriented process that is dependent upon the mental activities of the learner (Brown, Campione and Day, 1983). This cognitive orientation focuses on developing the mental activities of the learner to organize material they are learning in meaningful ways. It has been suggested that the learner must sift out relevant information from irrelevant, combine selected information in such a way as to make it interpretable, and perceive the relationship of old information to new learning.

Recent inquiry into the development of reading, writing, and thinking skills suggests the importance of stressing the interrelationship of these skills within a total process of constructing meaning, rather than focusing on discrete skills. Wittrock (1986) points out that both reading and writing require the active construction of meaning. However, the type of logic required to construct meaning, to make logical connections, and to organize information appears to vary across cultures (Kaplan, 1980).

Consequently, strategies to generate a particular type of organization of ideas are not inborn and must be taught to provide learners with more cognitive resources to develop comprehension skills. In addition, the role of writing in promoting learning of content area information has been of interest to theorists and researchers recently (Moffett, 1981; Fulwiler, 1987). Writing across the curriculum has focused on writing as a means of learning as well as an end product. The use of writing activities to supplement reading in content areas would appear to offer a particularly powerful learning tool for the English as a second language (ESL) learner.

Several studies, however, have found that writing instruction does not generally take place in grades 1 through 12 (Applebee, 1981, 1982; McLeod, 1986). In addition, for the ESL student, writing instruction is reduced to grammar exercises (Raimes, 1980) and generally to activities where form precedes content (Widdowson, 1978; Zamel, 1982, 1983). Bermudez and Padron (1986) argue that ESL students, in perceiving writing as a separate language activity and not as a process conducive to generating thoughts and ideas, are not using the strategies which writing researchers identify as necessary to become an experienced writer. Furthermore, instruction in the use of these strategies is generally lacking (Padron & Bermudez, 1987, 1988.) Considering the obvious need for investigation in this critical area, researchers have designed the following studies to investigate the effects of integrating writing, reading, and thinking activities for ESL students.

STUDY 1

The purpose of the initial study was to investigate the effects of writing activities in the comprehension and retention of content area reading for ESL learners. In addition, the study examined the relationship between the students' ability to select the main idea and their comprehension and retention scores. More specifically, the study was guided by the following research questions:

1. Does summarization of a content area reading selection affect the comprehension and retention of the material?
2. Is there a relationship between the number of main ideas included in the summary and the comprehension and retention of content area reading?

Subjects

Thirty-six Spanish/English bilingual students from low socioeconomic background participated in the study. The study was conducted in an inner city school from a large Southwestern city in the United States. There were 25 females and 11 males involved in the study. Students were in grades 6-11. More specifically, there were nine students in the sixth grade, nine in seventh, eight in eighth, five in ninth, four in tenth and three in the eleventh grade. Students were matched on the basis of their LAS scores. One student from each pair was randomly assigned to treatment and control group respectively.

METHODOLOGY

Five social studies reading passages taken from the same unit of the class text were read by each group. The passages related to the history, people, and industries of Vermont. Passages ranged in length from 200 to 250 words. Frye's readability formula was calculated on each passage. In no passage did the readability level exceed 2.5 level of difficulty. Since the ITBS reading levels of the group ranged from 2.9 to 5.0, the difficulty of the passage was appropriate for all subjects. The passages were retyped as handouts and key terms essential to the understanding of the passage were defined and translated into Spanish.

Subjects in the treatment group were given one passage a day to read silently and were told that they would be tested over the material after reading. Time allotted for silent reading was 15 minutes. Subjects were then instructed to write a sentence or two summarizing what they had read. They were given an additional 10 minutes to do the summary. Students were allowed to keep the text before them during the summary writing. For the purpose of this study summarization is defined as a written synthesis of the main points of the reading selection. According to Flower (1979), the summaries would be described as "writer-based". That is, summaries were prepared by the students for their own use and not to be handed in for a grade. The typed passages were not available to the student during the subsequent test.

Students in the control group were given 15 minutes to read silently the same selections and were given 10 additional minutes to reread the selections. These students were also told that they would be tested over the reading material. When they finished reading they were given ten additional minutes and told to go back and reread the passage in preparation for the test. There were no writing activities used with this group. The students proceeded to take the comprehension test without the help of the typed passages used in their reading.

Two teachers served as their own control; that is, they worked with both groups during different class periods using the same reading selections. These teachers were certified in ESL and enrolled in a Master's program at the University.

Both groups were tested on the same 6-item measure immediately after reading the individual selections. The process was repeated for five consecutive days. These five measures were summed over to yield a 30-item comprehension measure. Exactly one week later, the students were retested on all 30-items which had been combined to make one test.

The 6-item tests used in conjunction with each reading selection and combined to produce the measures of comprehension and retention were designed to incorporate items written at the literal, interpretive, and applied levels. Separate *t* -tests for non-independent means were used to compare performance of the treatment and control groups on the 30-item comprehension measure and the 30-item retention measure for both the treatment and control groups.

In addition, the summaries produced were analyzed for number of idea units, number of main ideas, and number of words produced. Idea units were defined as thought dependent or independent clauses that represented a thought (Gere and

Abbott, 1985). These summary scores, available only on the treatment group subjects, were then correlated with performance on the comprehension and retention measures.

Results

No significant difference was found between the treatment and control groups on either the comprehension measures ($t = 1.07$, $\underline{df} = 17$, $p < .29$) or the retention measures ($t = 1.95$, $\underline{df} = 17$, $p < .07$). The correlation between the number of idea units produced and the two reading comprehension measures was not significant ($r=.14$ and $.11$, $\underline{df}=16$, respectively), nor was the correlation between number of words and comprehension or retention scores ($t =.17$ and $.25$, $\underline{df}=16$, respectively). The number of main ideas included in the writing activity, however, correlated significantly with both the comprehension acquisition measures ($\underline{t} = .62$, $\underline{p} < .01$, $\underline{df} = 16$) and the retention measures ($t = .59$, $p < .01$, $\underline{df} = 16$). (Refer to Table 1).

Table 1
Pearson Product-Moment Correlation

	Idea Units	Words	Main idea
Comprehension	.14NS	.17NS	.62**
Retention	.11NS	.25NS	.59**

**$\underline{p}$<.01

Discussion

Merely incorporating a writing activity in which ESL students wrote short summary sentences of the main ideas in the content area reading passages did not improve the comprehension and retention of the selection. Students given additional time to reread the passage performed equally as well as the group that incorporated writing. Perhaps reading and writing are perceived as two very distinct activities by the ESL student, and the benefits of one skill do not necessarily transfer into the other. When the summaries were examined for content, however, those students who were able to identify main ideas and incorporate them into their summaries performed better on both the comprehension and retention measures. Summaries in general for both groups were sketchy indicating a need for some idea generating strategies prior to writing. A significant relationship was found between number of main ideas included and performance on both comprehension and retention measures.

STUDY 2

The purpose of the second study was to examine the effects of brainstorming and clustering on reading comprehension. It was hypothesized that the group using these cognitive strategies prior to and after reading the selection would score significantly higher on the comprehension measure.

Subjects

The subjects were 36 Spanish/ English bilingual ESL students from low socioeconomic background enrolled in a suburban school in the Southwestern United States. There were 22 females and 14 males in grades 2-5 involved in the study. Fourteen students were in second grade, eight in third, seven in fourth, and seven in fifth grade. A stratified random technique was used to match these students using the IDEA Language Proficiency Test scores to assign them to either the control or the experimental group. In addition, a *t* -test for correlated means was used to insure initial equivalence of these groups. No significant difference was found between the groups (t (17)=.42, p >.05].

Methodology

Three science reading passages taken from the same unit of the class text were read by each group. The passages related to characteristics and lifestyles of different types of sea mammals (i.e.,"Whales," "Dolphins," and "The Octopus"). Passages ranged in length from 200 to 250 words. Frye's readability formula was calculated on each passage. In no passage did the readability level exceed 2.0 level of difficulty. A state-certified teacher with an ESL endorsement and a Master's Degree in Education handled both groups.

Subjects in the treatment group were exposed to brainstorming (i.e., engaging in free associations to related concepts) prior to reading the selection. The information generated was displayed on the chalkboard. These students then read the selection silently. The next day further brainstorming followed and the new concepts were added to the ones previously collected. The teacher then clustered these ideas using transparencies and colored pens to visually represent the relationships. Following, the students were asked to respond to a 6-item multiple choice test containing questions at the factual, interpretative, and evaluative levels. The procedure was repeated every two days to include three reading selections. Subjects in the control group were given an explanation of the vocabulary involved, were shown a picture related to the content, and were then asked to read. Using prepared questions, the teacher discussed the reading selection. Next, these students were given the 6-item tests described above. The procedure was repeated every two days with the new reading selection. The instructional time was the same for both groups of students.

Results

A *t* -test for non-independent means indicated that the group receiving the treatment (i.e., brainstorming and clustering) performed significantly better on the comprehension measure [t (17) = 4.51, p<.001).

Table 2. Means, standard deviations, and *t* value of treatment and control groups

	M	SD	*t*
Experimental	10.8	2.07	4.51***
Control	8.4	2.31	

*** p<.001

Discussion

These results indicate that these strategies should be incorporated in ESL writing instruction to aid students' ability to select and organize ideas. Clearly, classroom teachers must provide direct instruction in developing idea generation and organization. ESL students, like learners in general, do not innately possess this important reading skill. Writing activities should be a part of this instruction for at least two reasons. First, reading and writing need to be viewed as interdependent and mutually inclusive units of communication. ESL students, in particular, need to think, read, and write in an integrated manner as they are developing communicative skills in English. Secondly, by nurturing writing, higher order thinking skills are also fostered.

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THE EFFECTS OF PARENT EDUCATION PROGRAMS ON PARENT PARTICIPATION

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Abstract

Studies have found that when parents are involved in their children's schooling there is improvement in academic achievement, school behavior, and language performance. The results of these studies have contributed to the increase of systematic parental education programs for low-income families. The purpose of the present article is to report the findings of several phases of a parent education program.

The parents education program outlined in this study represents a university-school district collaborative education program developed to integrate parent education in the inservice teacher training curriculum. It consists of a three-credit hour graduate course involving three phases: (a) on-campus training for the inservice teachers in ESL methodology and in issues related to parenting, (b) seven weeks of on-site ESL parenting instruction to adults whose children attend surrounding area schools, and (c) on-campus debriefing for the inservice teachers to discuss and evaluate the field experience.

The purpose of Study 1 was to investigate parental awareness, attitudes, self-reported participation level in school matters. Results indicated that for all three variables studied there was a statistically significant increase. The second study examined attitudinal changes of inservice teachers as a result of participating in the parent education program. Similarly, to the findings in study 1, results indicated that teachers' attitudes increased as a result of participating in the program. In the third study, the impact of the education program on students' language developmental was assessed. Results from the study suggest that parental participation in the program had positive effects on students' English language arts and reading performance.

INTRODUCTION

In the past decades, research has underscored the impact of the family in the child's learning process. Studies have found that when parents become involved in school activities: (a) children's academic achievement improves (Klaus & Gray, 1968; Schaefer, 1972; Walberg, 1984), (b) their language performance significantly increases (Henderson & Garcia, 1973), (c) general school behavior ameliorates (Levenstein, 1974); Weikart, 1973) and, (d) achievement gains are sustained (Gray & Klaus, 1970). Subsequently, systematic parental education programs have recently increased and have been generally successful, particularly with low-income families (Fine, 1980).

Parental participation is even more crucial for parents of children who are linguistically different. Typically, parents of Hispanic students are viewed as apathetic and uncooperative with the school personnel and practices. Blanco

(1978), however, has attributed the lack of parent involvement among Hispanics to factors such as (a) work interferences, (b) lack of confidence, (c) lack of English language skills, and (d) lack of understanding of the home-school partnership. In addition, a study done by Clark (1982, as cited in Berliner, 1985) showed that parents from low socio-economic environments wished to be involved but did not know who to contact or how to get beyond the school office. He further found that most of these parents felt that they did not have the right to ask for anything special from their children's schools. In support of this finding, Fine (1980) argues that the problem is not simply unconcerned parents but that of undercommitted schools. In spite of the important role of the parents in their children's success (Klaus & Gray,1968; Schaefer, 1972; Walberg, 1984), teacher education programs generally do not address the area of preparing teachers to deal with parents (Kahn, 1979). The lack of preparation can mean teachers are not effective in this important arena.

Clinical experiences with parents appear to be a viable means for developing teachers' abilities for communicating with parents. Generally, teacher preparation programs have been criticized for the absence of clinical experiences in both preservice as well as inservice teacher training (Goodlad & Klein, 1974). A recommendation to include clinical experiences in teacher education was endorsed in a report by the Association of Colleges for Teacher Education (Cruickshank, 1985). Further, in-service teachers have expressed a need for training courses that provide skills they can readily use in the classroom (Cruickshank, 1985).

Because the effectiveness of any teacher education program is to a large extent determined by how well teachers are prepared to function successfully in the classroom (Middleton & Cohen, 1979), it is imperative that the thrust of teacher training programs be to provide a stronger linkage between theory and practice. Fortunately, according to Rogus and Shultenberg (1979), these trends are increasing. Clinical experiences with parents, based upon translating theories of parental involvement into practice, could facilitate a much needed dialogue between parents and teachers. This exchange could prepare the parents to be more supportive of the school in working with the child (Lane, 1979) as well as preparing the teachers to understand parental needs and responsibilities (Bermúdez & Padrón, 1987).

Considering the studies above and the great need for the school involvement of Spanish-speaking parents, this project was conducted to study the impact of the University of Houston-Clear Lake parent education model. The parent involvement component in a teacher preparation program provides clinical experiences for in-service teachers to deal effectively with the Hispanic parent. The main objectives of the program were (a) to improve the parents' awareness and attitudes toward the school and the school's instructional program and (b) to increase in-service teachers' awareness of parental needs.

In designing the present model, previous programs identified as promoting effective school-home partnership were reviewed. These included such models as (a) parent education, (b) home-based programs, (c) school-based programs, and (d) leadership programs. The parent education model was selected for our training program because research has identified it as the most successful and effective approach to the training of parents (Grue, Weinstein, & Walberg, 1983). The following elements identified by Walberg (1984) as contributing to the success of parent education programs were also taken into consideration: (a) having the parents view the programs as an opportunity and not a requirement, (b) treating the parents as interested members in the education of their children, (c) providing the parents with a clear idea of what is expected of them in the program, (d) giving the parents specific strategies and skills needed, (e) praising and recognizing the parents' participation, (f) allowing parents to use objects that they can manipulate, and (g) providing materials that do not need much explanation.

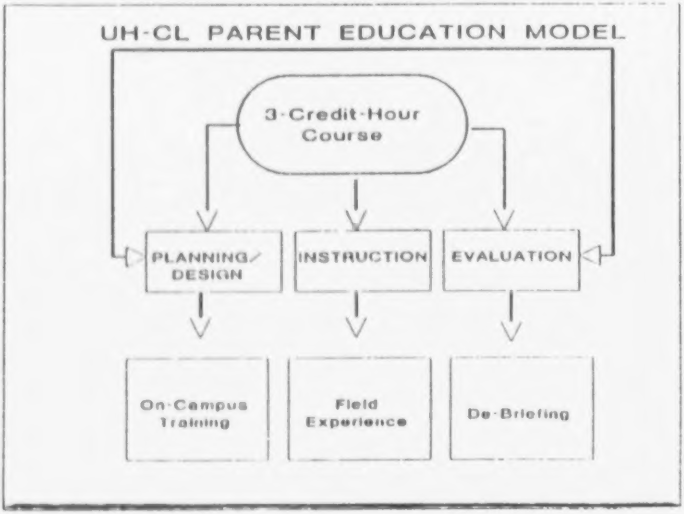
To minimize potential interference with program participation and maximize parental interest, the present study was preceded by a survey of parents to determine prior work commitments as well as educational needs of the target area (Bermúdez & Padrón, 1986). Guided by the survey findings, the program offers English as a Second Language (ESL) instruction and selected topics to provide the parents with a better understanding of the home-school-community partnership.

METHODOLOGY

Program Description

The program represents a university-school district collaborative education program developed to integrate parent education in the inservice teacher training curriculum. It consists of a three-credit hour graduate course involving three phases: (a) on-campus training for the inservice teachers in ESL methodology and in issues related to parenting, (b) seven weeks of on-site ESL and parenting instruction to adults whose children attend the surrounding area schools, and (c) on-campus debriefing for the inservice teachers to discuss and evaluate the field experience (refer to Figure 1).

FIGURE 1



In order to maintain uniformity in the instruction of parents, a manual (refer to Table 1) has been designed to be used as a curriculum guide (Bermúdez & Padrón, 1987b). One hundred-seventeen Hispanic parents from the surrounding area were surveyed to determine the nature and extent of their needs. These were reflected in the choice of topics considered for instructional purposes (Padrón & Bermúdez, 1986).

TABLE 1

DEVELOPING FAMILY LITERACY
A MANUAL FOR TEACHERS OF NON-ENGLISH SPEAKING PARENTS

TABLE OF CONTENTS
PART I: ENGLISH FOR SURVIVAL

INTRODUCTION

UNIT I: GREETINGS AND SALUTATIONS

UNIT II: MAKING FRIENDS

UNIT III: GETTING ALONG IN SCHOOL

UNIT IV: A VISIT TO THE BANK

UNIT V: LEARNING EACH OTHER'S NAMES

UNIT VI: GOING SHOPPING

UNIT VII: LEARNING TO SAY "NO"

UNIT VIII: A VISIT TO THE DOCTOR

UNIT IX: BUYING A CAR

UNIT X: FILLING OUT APPLICATION FORMS

PART II: ENGLISH VERSION

TOPICS FOR PARENT EDUCATION PROGRAMS

INTROUCTION

TOPIC 1: UNDERSTANDING THE EDUCATIONAL SYSTEM

TOPIC 2: SCHOOL PROGRAMS

TOPIC 3: PARENTS AS THE CHILD'S FIRST TEACHER

TOPIC 4: PARENTS WORKING WITH TEACHERS

TOPIC 5: A TRIP TO THE LIBRARY....................................
TOPIC 6: RECREATIONAL ACTIVITIES................................
TOPIC 7: PARENTS' ABILITY TO AID THEIR CHILDREN WITH THEIR STUDY HABITS...
TOPIC 8: STAGES OF COGNITIVE DEVELOPMENT..................
TOPIC 9: DRUGS EDUCATION...

PART III: SPANISH VERSION

TEMAS PARA PROGRAMAS EDUCATIVOS PARA PADRES DE FAMILIA

INTRODUCCION..
TEMA 1: FUNCIONAMIENTO DEL SISTEMA EDUCATIVO EN LOS ESTADOS UNIDOS...
TEMA 2: PROGRAMAS ESCOLARES..................................
TEMA 3: LOS PADRES: PRIMEROS MAESTROS DEL NIÑO........
TEMA 4: COMO COLABORAR CON LOS MAESTROS..............
TEMA 5: UN VIAJE A LA BIBLIOTECA...............................
TEMA 6: ACTIVIDADES RECREATIVAS.............................
TEMA 7: AYUDANDO A ADQUIRIR BUENOS HABITOS DE ESTUDIO...
TEMA 8: ETAPAS DEL DESARROLLO COGNOCITIVO DEL NIÑO..
TEMA 9: EL PELIGRO DE LAS DROGAS..............................

During a three-year formative evaluation, the researchers examined the effects of the program on parents, inservice teachers, and student academic achievement. The purpose of the present investigation is to summarize the results from phase one (the parents) and two (the teachers) and to report the findings on phase three (student achievement).

Study 1: Effects of the Program on Parents

The purpose of Study 1 was to investigate parental awareness, attitudes, and self-reported participation level in school matters. A pre/post test design was used to analyze data from 77 program participants who were parents of children being served by a large, predominantly inner-city school district, located in a substantially Hispanic metropolitan area of the southwestern United States.

Parental Involvement Questionnaire

The pre- and post-instrument used in this study was a 22-item Likert scale questionnaire. An estimated reliability coefficient of 0.84 was obtained using the Kuder-Richardson 20 formula. All 22 items have significant discriminating power, ranging from 0.25 to 0.68. Experts in the field have established its content validity.

In addition, a factor analysis indicated that the items clustered in three constructs: (a) general attitudes toward the home-school team, (b) degree of actual parental participation in school activities, and (c) parental duties and responsibilities in the educational experience of the child. More specifically, attitudes toward the home-school team included a measure of general attitudes toward the instructional program (i.e., bilingual programs), attitudes toward participation in their child's educational program, and attitudes about the role of the parent in maintaining cultural pride. Actual participation entailed being active in school events, parental support in the child's academic activities, communicating with other parents, and knowledge about community and legal resources. Finally, parental duties and responsibilities addressed issues related to the role of parents in the development of their children's self-esteem, specific knowledge about the benefits of instructional programs, awareness of when to help the child academically, and knowledge about whose responsibility it is to educate the child.

Results

Data Analysis

A pre/post-assessment design was used to analyze the data. Table 2 reports the means, standard deviations, and t values for all variables. The variable Attitude was statistically significant at the .05 probability level. Variables Participation and Duties were also significant at the .01 and.001 levels of probability, respectively. The mean score for Attitude was 37.25 (SD=3.26) on the preassessment. A statistically significant increase (M=38.15; SD=2.56) was indicated on the postassessment (t =2.13, p <.05). Similarly, the variable Participation also showed an increase. The preassessment mean score for Participation was 22.85 (SD=4.10), while there was a statistically significant (t=2.72, p <.01) increase in the postassessment (M=24.72, SD=3.77). In addition, the mean score for Duties in the postassessment (M=30.13, SD=4.69) was also significantly (t = 4.52, p <.001) different from the preassessment (M=26.87, SD=4.81). Thus, as expected, the composite score of the variables Attitude, Participation, and Duties was statistically significant (t =5.76, p <.001). These results suggest that exposure to the training increased the parents' positive attitudes toward the home-school teams as well as their participation in school matters (Bermúdez & Padrón, 1987).

TABLE 2

Means, Standard Deviations, and t Values for all Variables

	Preassessment		Postassessment		
	M	SD	M	SD	*t*
Attitude	37.25	3.26	38.15	2.56	2.13*
Participation	22.85	4.10	24.72	3.77	2.72**
Duties	26.87	4.81	30.13	4.69	4.52***
Total	86.98	7.53	93.00	7.52	5.76

*p<.05; **p<.01; ***p<.001

Study 2: Effects of the Program on Teachers

The second study examined attitudinal changes of inservice teachers. Teachers were asked to report their observations, feelings and opinions in field notes that they were to keep throughout the duration of the projects. Analysis of these data indicated that 80% of the participating inservice teachers had a positive change of attitude towards minority parents whereas the 10% who already had positive attitudes stated that this experience increased their sensitivity towards the needs of the parents. No change in attitude was found for the remaining 10%.

Teachers also outlined several strengths of the program. In general, they felt that the program (a) gave the teachers and the parents a chance to understand each other in a supportive environment, (b) addressed the basic needs of parents, and (c) made the parents understand their role in the education of their children. Furthermore, the teachers learned that most parents are extremely supportive of the educational system but feel isolated due to the lack of English skills. Comments from the trainees regarding knowledge acquired as a result of this experience included "I learned that parents of LEP children are like any other parents."; "I felt such a satisfying exhilaration every time we left."; "The program has been the most enriching learning experience that I've ever had."; "I was unprepared for their enthusiasm, their willingness to work hard, and their generally high level of motivation to learn." (Bermúdez & Padrón, 1988).

In general these field notes seemed to indicate that teachers improved: (a) their knowledge about parents' needs, (b) their general attitudes about parents, and (c) their ability to communicate with parents (Bermúdez & Padrón, 1988).

Study 3: Effects of the Program on Student Achievement

The purpose of the third study was to examine the impact of the education program on young Hispanic students' language development as measured by achievement scores in English language arts and reading.

Data Sources and Methods

Subjects

A group of 46 Hispanic children ages 5-6 was used as a sample for this study. The students came from low socio-economic backgrounds and were enrolled in bilingual or ESL programs in a small suburban school. The 18 males and 28 females in the sample had been in the United States from four to ten years.

Procedure

Parents were sent notices announcing the program. Once parents were registered and in attendance, teachers randomly selected a group of 23 of the participants' children for the experimental group. These students were matched with a comparable group of students (N=23) whose parents did not take part in the program in order to determine the effects of parent instructional involvement on student achievement. Student achievement was measured using their scores before and after the parent education program. Data was analyzed using *t* -tests for independent samples.

Results

The results indicated that the achievement of the children whose parents were program participants increased significantly in reading [t (22)=2.24, p <.05] and language arts [t (22)=2.15, p <.05] during two subsequent grading periods. However, the achievement of those children whose parents did not participate remained unchanged in reading [t (22)=1.82, p >.05] and language arts [t (22)=0.0, p >.05] during the same grading period (refer to Table 3).

These results suggest that parental participation in the program had a positive effect on students' English language arts and reading performance. These findings seem to corroborate the critical role of parents in the education of children, particularly in the area of language skills development.

TABLE 3
Means, Standard Deviations, and t Values for All Variable in the Experimental Group and the Control Group

	Pre-assessment		Post-assessment		
	M	SD	M	SD	*t*
		EXPERIMENTAL			
Reading	1.17	1.33	1.57	1.38	2.24*
Language Arts	2.30	1.06	2.65	.49	2.15*
		CONTROL			
Reading	1.13	1.33	1.39	1.43	1.82
Language Arts	2.34	1.03	2.34	1.03	1.00

*p <.05

CONCLUSIONS

Personnel training programs must begin to focus on the training of professionals to meet the needs of the culturally and linguistically diverse students. Preservice and inservice programs must include knowledge and sensitivity related to multicultural systems and family involvement (Fradd, Weismantel, Correa, and Algozzine, 1988). As Chavkin and Williams (1988) indicate: "Everyone agrees that teachers need better skills for involving parents in the education of their children, but few teacher education institutions emphasize such skills" (p.87).

It is evident from the results reported here and from the review of the literature that preceded these investigations that involving parents through collaborative educational programs offered by the schools have significantly positive effects on all the parties involved in student academic achievement. However, these programs must be carefully planned and evaluated to serve as a bridge between isolation and participation by developing in both parents and teachers the ability to communicate with each other. Once this dialogue has been established, students will have the necessary continuity between home and school to support their learning.

Some of the features that contributed to the success of this program, as reflected in the teacher's evaluation of this course, include: (a) flexible scheduling of classes to include both fathers and mothers; (b) research-based framework for activities, classroom methodology, and content; (c) collaborative efforts of the school districts, the community, and the university; (d) teaming among inservice teachers to provide variety in the instruction of parents; (e) field-based instruction; and (f) use of a standardized curriculum guide. In addition, an educational program to serve parents must take into account the particular topography of the target area, which includes parents' needs, aspirations, and present status. Therefore, a needs assessment must be conducted to determine the parameters of the parent education program to be offered. The overriding goal in planning the curriculum must be to reduce the alienation of parents so that they can become supportive of school efforts to educate their children and proactive in the decision-making process.

The following are general components that are suggested for inclusion in a parent education program: (a) developing communicative skills in ESL, including cultural awareness; (b) increasing parental understanding of educational programs that can benefit the children, including bilingual, ESL, gifted and talented and special education programs; (c) increasing the parents' knowledge of specific instructional strategies to use at home; and (d) raising parental awareness of their significant role in "making things happen" for their children which includes raising their expectations about their children's future.

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CONSTRUCTION OF A PHONOLOGICAL DEVELOPMENT TEST IN SPANISH AND ENGLISH (PHDESE) FOR BILINGUAL CHILDREN

Virginia González

Abstract

The purpose of this study was to construct a phonological development test in Spanish and English (PhDeSE), which assesses the phonetic errors and phonological strategies that bilingual children learning English or Spanish as a second language use for acquiring articulation and auditory discrimination skills. The PhDeSE was constructed based on Jakobson's model of distinctive features and minimal pairs (Jakobson & col., 1952).

A pilot study was conducted for testing the stimuli and the administration procedure with a sample from the same population of the final study. The sample had the following characteristics: first graders, average achievers, non-learning disabled, non-emotionally disturbed, normal cognitive ability students. The PhDeSE test has validity as it correlates with readiness tests for reading. It can also be useful for screening and differential diagnosis purposes. The test can differentiate between phonological disorders (problems in the auditory discrimination skill, a disorder in the phonemic categorization) and phonetic disorders (problems in the motor schemes for articulation).

The universal model of Jakobson has been confirmed. It is necessary that a pattern of phonological development, according to the child's age, exist in the first language before the process of learning the second language begins. A 4 point qualitative scale of phonological readiness categories is presented: superior, normal, delayed, or disordered.

INTRODUCTION

The purpose of this study was to construct the Phonological Development Test in Spanish and English (PhDeSE). The PhDeSE test was designed in response to the need for valid and reliable instruments for assessing phonological development among children learning English as a second language on two levels: 1) the phonetic errors, and 2) the phonological strategies that the child uses for acquiring articulation and auditory discrimination

At the moment there is no Spanish/English test that can assess a combination of both, articulation and auditory discrimination, as they are parallel processes in the expressive and receptive channels. That is, there are no tests that provide a phonetic and a phonological analyses of responses. There is a need for a phonological development test, with parallel equivalent forms in Spanish and English, that can offer qualitative categories for differential diagnosis between the normal process of phonological development and the pathological patterns in articulatory and auditory discrimination abilities.

The focus on the assessment process should be placed on the qualitative analysis of the data, trying to discover the phonological strategies that the child uses for learning both languages (there is an integrated pattern). These strategies can afterwards be transferred directly to the practical needs of curriculum planning and teaching. Today the focus is instead on the qualitative analysis of data collected through standardized tests that have no practical implications in the bilingual classroom. Presently, there is a need for valid and reliable instruments that provide a qualitative differential diagnostic system for making accurate referrals for bilingual classrooms (if the phonological development process is normal in Spanish as first language and ESL-English as a second language-), and for special classrooms (if there actually is a handicapping condition in both languages in speech-articulation and/or language-auditory discrimination abilities).

The PhDeSE was constructed based on Jakobson's universal model of distinctive features and contrasts (Jakobson, Fant, & Halle,1952). The phonological strategies were based on the theory of natural phonology (Stampe, 1969). The following phonological strategies were identified: substitution (Ingram, 1975), reduplication (Ingram, 1974; Ferguson & Garníca, 1975), homonimy (Ingram, 1974; Priestly, 1980; Vihman, Macken, Miller and Simmons, 1981), generalization (Ingram, 1975); and avoidance (Ingram, 1974).

Hypotheses

Three hypotheses were stated in order to test two general objectives related to the purpose of the study, which was the construction of the PhDeSE test. The first general objective was to test the psycholinguistic theoretical constructs used: i) the universal model of distinctive features and contrasts, Jakobson (1971) and ii) the natural phonology of Stampe (1969). The first and third hypotheses were used to test these theoretical constructs. The first hypothesis tested whether the expressive (articulation) abilities develop simultaneously or sequentially in both languages. The third hypothesis tested whether the receptive abilities have a sequential or a simultaneous development in both languages. It was included in the psychometric analysis of data in the item analysis section, which presents the item difficulty level of categories of items based on the distinctive features and contrasts stated by Jakobson (1971). The purpose of this phonological analysis was to try to identify a pattern or order of phonological acquisition in bilingual children for both languages. Also, the phonological strategies used by the children in both languages were identified, based on the natural phonology of Stampe (1969).

The second general objective was to make a cross-cultural comparison between a previous study, with the PhDeSE test constructed with Peruvian Spanish monolingual children in the process of learning English as a second language, and the present study conducted with Mexican-American Spanish/ English bilingual and LEP (limited-English proficient) children. The second hypothesis addressed this general objective. It tested whether the socio-cultural environment made a difference in the levels of language proficiency achieved by children in the first and second languages. This hypothesis was also related to the first general objective: the existence or not of universality on the phonetic errors and phonological strategies used by the children in the language learning process.

H1: There is a universal sequence in the acquisition of distinctive features between languages (Spanish/English) in the expressive abilities (articulation).

H2: The selected bilingual children (Mexican-Americans) are expected to attain higher scores than the selected monolingual Spanish children (Peruvian) in the process of learning English as a second language (ESL) (González, 1986) on the PhDeSE test.

H3: Children will have a higher level of auditory discrimination ability in the first language than in the second language.

METHODOLOGY

The objective of the study was the construction of the PhDeSE test. It was exploratory in nature, since it attempted to control for specific characteristics of the subjects (as normal cognitive development, non-emotional disturbance, and average achievement). Because of the latter, the design of the study for the stated hypotheses was Ex Post Facto. The procedure for the test construction was psychometric.

Sample

The sample of subjects selected was limited to 15 individuals, because only the group as a unit was used to compare the hypotheses tested, and also because the content sample of responses was used for the different steps to determine the validity and reliability of the PhDeSE test. Furthermore, the purpose of the study was to construct a test with a qualitative based diagnostic criteria, and not to construct a standardized test based on standardized norms.

The subjects were 15 children, ranging from 6 to 7 years of age, who attended regular bilingual first grade classrooms. Both females and males participated in the study (gender was not controlled for the selection of the subject sample). The subjects were attending a public school that served mostly a Hispanic population living in a central area of the Southwest of the United States, a low S. E. S. neighborhood. In this particular school, bilingual classes served half of the school's population in the kindergarten and primary school grades.

The subjects were mostly members of immigrants families from Mexico. Some children had been born in Mexico, others in the U.S. ; so the period of time in the U. S. varied from 3 to more than 7 years. A few children were second generation born in the U. S. That is, their parents were first generation. Most of the children's parents had Spanish as their first language. The majority of parents did not speak English, even though some had a low level of English oral language proficiency, and all of them were illiterate in both languages.

The pool of subjects was selected according to the following characteristics: average achievement performance, non-learning disabled and non-emotionally disturbed classifications, and normal cognitive ability. Data for the first three characteristics mentioned were gathered from the student's files at school. These data were supplemented by the information gathered with the Pupil Rating Scale rated by the student's bilingual teacher (taking into consideration achievement in both languages, Spanish and English). The fourth characteristic mentioned above was measured by the Test of Nonverbal Intelligence (TONI).

Subjects were also tested on the control variable language proficiency level in Spanish and English. To measure this control variable the Pre-LAS (Preschool Language Assessment Scales- Spanish and English-) was used. The scores on the Pre-LAS were used to generate quantitative data and to divide the subjects in three groups: 1) Balanced Bilinguals (the ones who received the same scoring level of language proficiency in both languages), 2) Spanish/Limited-English Proficient (LEP), and 3) English/Limited-Spanish Proficient.

Content Sample

Each child had 30 responses in the PhDeSE test in Spanish, and 61 responses in the PhDeSE in English: a total of 91 responses per child were collected. Fifteen subjects participated in the study for a total of 1,380 responses.

Apparatus

Auditory Stimuli

The auditory stimuli consisted of minimal pairs, presented through a recorder, and recorded by an adult native speaker of each language. Minimal pairs are pairs of words that differentiate phonetically only in one phoneme and have different meanings. The minimal pairs selected were part of the children's vocabulary.

Visual Stimuli

The visual stimuli consisted of rebus symbols published as instructional materials by the American Guidance Service (AGS). They are schematic drawings in black and white.

Responses

To assess the articulation ability, the child was asked to imitate the auditory stimuli recorded as models. The child's responses were written down in the protocol. The responses were also recorded for further qualitative analysis of the data. To assess the auditory discrimination ability, the child heard one word from the auditory recorded model, and was asked to point to one of the two visual stimuli presented. The child's responses for the latter task were written down in the protocol as correct or incorrect. All the responses were given after showing the child the visual stimuli.

Procedure

Pilot Test

A pilot test was developed with various stages in order to determine the validity and reliability coefficients of the PhDeSE test. This pilot test was administered to 5 subjects with the same characteristics of the study population sample. The subjects were selected at random from the same population. Only 5 subjects were selected for the pilot study sample, because the purpose of conducting the pilot test was to field test the appropriateness of the visual and auditory stimuli and the administration procedures.

The pilot test had 4 sequential steps, which were the following: 1) phonological level in Spanish and English, 2) lexical level in Spanish and English, 3) transcription of the responses to the Spanish and English forms, and 4) scoring of the responses to the Spanish and English tests.

Testing

Once the study sample was selected, subjects were individually tested by the researcher on three-1 hour sessions during a period of three weeks. The tests administered measured the following abilities: 1) articulation skills-Spanish: APP (Assessment of Phonological Processes), and -English: TAP-D (Test of Articulation Performance-Diagnostic); 2) auditory discrimination skills: Wepman in Spanish and English; and 3) reading readiness -Spanish: BADIMALE (Batería de Madurez Lectora), and -English: Metropolitan Readiness Test. These three measures were used for the psychometric analysis of validity and reliability of the PhDeSE test.

RESULTS

The results section will present first the different steps for the test construction and its validity, second the reliability, and third the test of hypotheses.

Item Analysis

Difficulty of Items

The PhDeSE Spanish version had a mean score of 24.8 out of 30 and a SD of 1.384. The PhDeSE English version had a mean score of 48.6 out of 61 and a SD of 5.501. The test items were ordered according to the degree of difficulty (r) per categories. Items ranging from 75 to 85 were considered acceptable.

Children performed slightly better in the Spanish version of the PhDeSE test, with a mean of 82.6 % of correct responses. In Spanish, children mastered (at a 90 % level) 51.61 % of the phonemes. The categories mastered were: voiceless occlusives vs. nasals, voiceless occlusives vs. fricatives, front vowels vs. back vowels, voiced occlusives, and voiced occlusives vs. nasals. The complete set of categories and contrasts used in the study are presented in tables 1 and 2. This section describes the main findings only.

Children performed less accurately on the English version of the PhDeSE test, with a mean of 79.7 % of correct responses; the phonemes were mastered (at a 90 % level) 49.2 %. The following cases illustrate the voiceless affricates vs. voiced affricates category mastered: initially positioned English consonant clusters that exist in Spanish, and initially and finally positioned English consonant clusters that do not exist in Spanish.

Initially positioned English consonant clusters that exist in Spanish were mastered 100 % in the PhDeSE test English version, but were not mastered in Spanish. Students performed better on English consonant clusters that exist in

Spanish than on consonant clusters that do not exist in Spanish; including consonant clusters in initial position compared with those in the final position.

Stops (occlusives and nasals: /p/, /b/, /m/) were acquired first than fricatives, especially in English, because there are more fricative and affricate phonemes in English than in Spanish; which were not mastered yet by the children in this study. This finding was supported by Jakobson laws (1971); according to which, affricates should be the last phonemes to be acquired. This could happen because fricative phonemes are less in Spanish than in English, and also because several fricatives phonemes do not exist in Spanish: /v/, /O/, /j/, /z/, /sh/, /z/. Furthermore, in English, there are more fricative phonemes than affricate ones, and affricate phonemes do not exist in Spanish at all. As Jakobson stated (1971), affricates may exist only if stops and fricatives are present. As the results show, this happens in English, but does not happen in Spanish.

Regarding vowel development, children performed better in Spanish than in English. In the phonemes that exist in both languages, children showed mastery levels; but in the English phonemes that do not exist in Spanish, children did not show mastery levels.

Table 1

Percentage of Errors per Categories of Distinctive Features: PhDeSE Test Spanish Version.

Categories		Percentage of Correct Answers
A) Vowel Non-Consonants		
I)	Front Vowels vs. Back Vowels	95.60
B) Consonants Non-Vowels		
II)	Voiced occlusives vs. Fricatives	80.00
III)	Voiced occlusives vs. Nasals	98.33
IV)	Voiceless	88.87
V)	Voiceless Occlusives vs. Voiced	81.38
VI)	Nasals	66.70
VII)	Voiced Occlusives vs. Nasals	91.13
VIII)	Voiceless Occlusives vs. Fricatives	96.65
IX)	Voiced Occlusives	93.30
C) Consonant Cluster		
X)	Consonant Vowels	66.65
D) Consonant Clusters		
XI)	Voiced Occlusives vs. Voiceless Occlusives	46.70
XII)	Voiceless Oclusives	53.30

Table 2

Percentage of Errors per Categories of Distinctive Features: PhDeSE Test English Version

Categories		Percentage of Correct Answers
A) Vowels Non-Consonants		
I)	Vowels	86.65
B) Consonant Non-Vowels		
II)	Consonant Clusters in English in Initial Position that Exist in Spanish	100.00
III)	Consonant Clusters in English in Final Position that do not Exist in Spanish	90.00
IV)	Consonant Clusters in English in Initial Position that do not Exist in Spanish	95.75
C) Consonant Non-Vowels		
V)	Voiceless Oclusives vs. Voiced Oclusives	76.65
VI)	Voiced Oclusives vs. Voiced Fricatives	51.02
VII)	Nasals	48.87
VIII)	Voiceless Oclusives	73.30
IX)	Voiceless Fricatives	40.96
X)	Voiceless Oclusives vs. Voiceless Fricatives	56.65
XI)	Voiced Oclusives vs. Voiceless Fricatives	53.35
XII)	Voiceless Fricatives vs. Voiced Affricates	73.35
XIII)	Voiceless Affricates vs. Voiced Affricates	93.30

The phonological strategies used by the children in both languages were classified into the five categories previously identified in the monolingual's child phonological development. The results are presented in Table 3. A comparison of the percentage of errors made in each language is presented for each phonological strategy.

Table 3
Percentage of Errors per Phonological Strategies: Spanish and English Version of the PhDeSE

Phonological Strategy	Spanish	English
Substitution	14.2	40.6
Reduplication	2.4	2.4
Homonimy	7.2	21.4
Generalization	3.6	2.4
Avoidance	3.6	2.4
Total	31 %	69%

Validity of Items

The discrimination of items was obtained through the Point Biserial correlation. It was established that .3 was the minimum value for an acceptable item-test coefficient (Reid, Hresko, & Hammill, 1981; Anastasi, 1976). The better items were selected at a $p < .05$, or $p < .001$.

For the PhDeSE test Spanish version there were 33.3 % of acceptable item-test coefficient; and 34.4 % for the PhDeSE test English version. This percentage of correlations of the items with the total score on the PhDeSE test was the result of many items with correct responses (100 % , 90 % or 80 %) in both versions, which makes r=0.

Criterion-Related Validity

Concurrent Validity

The concurrent validity showed a significant correlation coefficient ($p < .001$) between the PhDeSE Spanish articulation (r= .823, $p < .001$) and auditory discrimination (r=.845, $p < .001$) and the Pre-LAS Spanish; and between the PhDeSE Spanish articulation and the APP-Spanish. There was a significant correlation coefficient ($p < .05$) between the PhDeSE English auditory discrimination, and the TAP-D in its initial, medial and final positions, and the TAP-D in its place, manner, and voice characteristics (r= .558, $p < .05$). These results support that the PhDeSE test in its Spanish and English version measure the same conceptual constructs (phonological development) as the TAP-D English and APP-Spanish.

The scores on the articulation and auditory discrimination of the PhDeSE test in Spanish and English version presented a significant correlation coefficient (p <.001) with the Pre-LAS Spanish. However, the correlation coefficient of the PhDeSE test in Spanish and English with the Pre-LAS in English was not significant.

Construct Validity

The construct validity was obtained through the correlation between the PhDeSE test, and tests which measure the control variables. Among the significant ones are: TONI and Wepman Spanish (r= .5, p < .05), TONI and BADIMALE (p < .1), Wepman Spanish and TONI, BADIMALE and Pre-LAS English (r= .617, .p , 002), and TONI and BADIMALE (r= -.463, p <.001).

Reliability

Internal Consistency

For estimating reliability the odd-even split half procedure was used, followed by the correction factor and the Spearman-Brown prophecy formula. Anon-significant correlation of .2 was found. It is possible that the correlation between even and odd items of the PhDeSE test in Spanish and English version was not significant, due to the broad difference that existed between categories of distinctive features. Some categories were mastered at 100 % level and other as low as 26 %.

Test of Hypotheses

The first hypothesis tested the correlation between performance in the PhDeSE test in both languages. The test for the second hypothesis rejects the null hypothesis in Spanish (t= 2.421, p < .005, d.f. 38), and in English (t= 14.025, p < .05, d. f. 38). The t test has a higher value of significance for the Spanish test than for the English test. Peruvian children (Gonzalez, 1986) performed better than Mexican-American children on the PhDeSE test Spanish version; but Mexican-American children performed better than Peruvian children on the PhDeSE test English version.

The test of the third hypothesis also rejected the null hypothesis (t= 1.734, p < .05, d.f. = 14). These results support the possibility of making differential diagnosis in the speech and auditory discrimination problems with the PhDeSE test.

DISCUSSION

Item Analysis

The results of the difficulty of items showed that balanced bilinguals performed better in overall languages in both skills in the PhDeSE test, than LEP and limited-Spanish proficient children. This result reinforces the belief that children have to be proficient in both languages to also have a good functional level of cognitive skills in the first and second languages. LEP children performed better in the Spanish version of the PhDeSE test than balanced bilinguals. Limited-Spanish proficient children preformed better in the

PhDeSE English version than balanced bilinguals. This can be taken as an example of the sequential manner in which phonological development normally takes place in bilingual children. If a subject has a balanced bilingualism, then the overall language development will be at a lower level in comparison with the first language of bilingual subjects that have clear language dominance.

The performance of the children on the phonological strategies used was superior in Spanish when compared to their performance in English. That is, they made less errors in Spanish, for which they needed to use phonological strategies. Substitution and homonimy were the two strategies more commonly used; and the other three strategies (reduplication, avoidance, and generalization) were less frequently used by the children in both languages.

Criterion-Related Validity

The fact that on the concurrent validity testing, the scores on the articulation and auditory discrimination of the PhDeSE test presented a significant correlation with the Pre-LAS Spanish, but not with the Pre-LAS English can be due to various reasons: 1) the language proficiency of the children in English did not have much variability but the language proficiency of the subjects did vary in Spanish, 2) the need for more subjects, grouped according to their first and second languages, and the need to control the level of proficiency in their first and second languages, 3) the Pre-LAS in English was too easy for the children , and 4) the Pre-LAS Spanish version was more difficult for the children in the study.

Construct Validity

The significant correlations obtained in the testing of construct validity perhaps occurred because TONI is a non-verbal test designed for the non-discriminatory assessment of minority populations, and the Wepman test is designed for Hispanic children. Both tests have a non-verbal type of response. TONI and BADIMALE correlated, perhaps because of the same reason. It is apparent that the three tests mentioned can be used with Hispanic children. Therefore, the PhDeSE test can be helpful as an additional criterion for assessing readiness for reading and writing in pre-schoolers and first graders. The abilities measured by the PhDeSE test are important for encoding and decoding phonemes and graphemes.

Reliability

Based on the results of this study, it seems that the Spanish version of the PhDeSE test is more reliable, but the reasons are unknown. It could be that the Pre-LAS measures other language skills than the PhDeSE test. It is possible that the skills assessed as language proficiency in the Pre-LAS English correlated with the skills assessed by the PhDeSE test in English (articulation and auditory discrimination), as actually happened in Spanish. However, in this study the results for English showed a non-significant correlation.

Test of Hypotheses

In the statistical analysis of the first hypotheses, the correlations between performances in the PhDeSE test in both languages is not significant. This result can be due to the fact that the subjects had different types of bilingualism. They were either Spanish/LEP or English/Spanish in the process of becoming bilinguals. The fact that there was not a correlation between bilingual children's performance on the PhDeSE Spanish and English, supported the differences between the two languages in terms of their phonological characteristics; many phonemes that do not exist in one language do not exist in the other one either. Phonological development in the first and second language is not simultaneous but sequential, so that the child will have a higher level of development in the first language than in the second language, due to cognitive learning factors. Cognitive factors are involved because in the expressive and receptive abilities of phonological development, there is meaning symbolically represented.

Practical implications include: -If the child has a satisfactory proficiency level of phonological development in one language, but not in the other one, it does not mean that he has speech disorders or language problems when he is assessed only in the second language. -If the child is assessed only in the second language, in which he does not present an acceptable proficiency level, he will not necessarily present a phonological disorder in the first or second language. He can present developmental delays or make mispronunciations in comparison with a native speaker of the second language, but if compared to a native speaker of the first language he will be in the normal acquisition process. So that, if the child is compared to an ESL learner, similar normal patterns of phonological strategies will emerge, especially for the phonemes of his second language that do not exist in his first language.

It is very important to look at the qualitative characteristics of the responses in order to determine if there are delays or pathological patterns uncommon to ESL learners. Therefore, only a child who has developmental delays and uncommon phonological patterns in the first and second language, will actually present speech or language disorders.

The fact that the third hypothesis was supported, for the first language of both socio-cultural groups, can be due to the different environments to which these two groups of children are exposed: Peruvian children to a monolingual Spanish social environment, and Mexican-American children to a bilingual Spanish/English social environment.

Differential Diagnosis

Differential diagnosis has been experimented with different forms of the PhDeSE test on primary school children, who have learning disabilities in reading and writing and have visual perception problems, sometimes associated with the auditory perception. It is important to determine if the problem is in the area of speech (phonetic problem: the ability of articulation). In this case the problem can be due to a difficulty in building up phonetic motor schemes, or due to a learning disability that could be in the areas of: visual and auditory perception , auditory memory (especially at a sequential, short-term level), or cognitive abilities (as the ability for the construction of symbols as phonetic representations).

Differential diagnosis has been also experimented with the PhDeSE test with primary school children, modifying the administration procedure at various levels: -at the level of copying minimal pairs for assessing visual perception as a viso-motor fine level coordination, - at the level of dictating for assessing the association ability between auditory and visual perception, as the construction of the auditory schemes are transformed into grapho-visual representations. These different procedures for administering the PhDeSE test can be helpful in generating qualitative data for making differential diagnosis.

A 4 point scale with diagnostic phonological readiness categories was used to analyze the results in a qualitative manner: superior, normal, delayed, or disordered. It would be interesting to make a similar study involving more subjects; including a broader range of ages and characteristics of children such as: 1) balanced bilinguals, 2) limited-English proficient children (LEP) in the normal process of learning English as a second language, 3) bilingual children with learning disabilities (especially with reading problems), and 4) bilingual children with speech and language problems. More data can be gathered, controlling the characteristics of these four different groups of bilingual children, to analyze qualitatively the patterns of children's performance on the PhDeSE test. These data could be used to make differential diagnosis among these four groups of children.

The results supported the use of the PhDeSE test for conducting differential diagnosis between speech and auditory discrimination problems. It demonstrated the necessity to consider the child's maturational level in phonological development in the first language before the process of learning the second language begins. It is apparent that a pattern of phonological acquisition exists in the first language that is transferred to the process of learning the second language in the bilingual child.

The results support the possible use of the PhDeSE test to determine the student's language dominance. Moreover, the variables measured can help predict the potential ability of the child to learn English as a second language (ESL), before and/or during the early phases of the instructional process.

CONCLUSIONS

The PhDeSE test has validity for the assessment of the phonological development on the skills of articulation and auditory discrimination in Spanish and English. The PhDeSE has correlation with the readiness test used for assessing reading and writing in Spanish (BADIMALE). Therefore, the administration of both tests can be useful for screening children in the early phases of the process of learning how to read and write. It is also possible to make differential diagnosis in speech and auditory discrimination problems using the PhDeSE test.

The universal model of Jakobson of phonological development was confirmed through the results obtained in the PhDeSE test. The phonological developments in the first and second languages are not simultaneous, but sequential (first hypothesis); so that the child can have a higher level of development in the first language than in the second language. This finding can be the result of cognitive learning factors associated with phonological development, or the different phonetic and phonological characteristics of the Spanish and English languages. It is necessary for the child to develop a maturational level in the phonological development in the first language before beginning the process of learning the second language.

It is evident that a pattern of phonological acquisition exists in the first language, which is transferred to the process of learning the second language in the bilingual child. There are idiosyncratic patterns of phonological development that the normal child uses consistently for first and second language learning. For example, the categories of distinctive features are acquired before the contrasts. Although, individual differences exist, these idiosyncratic patterns could be categorized qualitatively in a future research study. A 4 point scale of diagnostic phonological readiness categories suggested to analyze the results in a qualitative manner is: -superior, normal, delayed, or disordered.

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